MIDWEST DEALER ISSUE
Pages 9-20

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ouse Expected to llow $1¼ Million or Medfly Control

WASHINGTON, D.C.—An emer-ncy appropriation of $1.25 million be used in containing the Mediter-nean fruit fly within a 20-square-le area of Dade county, Florida, ere the pest is now located, ap-ared certain of approval by the use after the Senate last week cepted the Holland amendment to s effect.

This heavy artillery aimed at the edfly would be used for the fiscal eriod ending June 30, 1956, al-hough an additional $250,000 is rovided for a continuation of the roject in the next fiscal year.

According to USDA specialists o are laying plans for control of s fruit pest, the anticipated ap-

(Continued on page 24)

hosphatic Fertilizer utput Gains in March

WASHINGTON—U.S. March pro-ction of superphosphate and other osphatic fertilizers amounted to 0,208 short tons (100% A.P.A.), an crease of 3% from the February 56 output.

Shipments of superphosphate and her phosphatic fertilizers during e month totaled 219,033 tons or an crease of 22% over the previous nth's volume. Stocks on hand at e end of March were 14% less than se held on Feb. 29.

March production included 154,392 ns of normal, 1,623 tons of enriched, 414 tons of concentrated, 424 tons wet-base goods and 19,355 tons other phosphate fertilizers, which cludes chemically processed ma-rials such as ammonium phos-ates, metaphosphates, calcium osphates, etc.

More Than 1,000 Expected to Attend Institute Meeting

WASHINGTON—Plans have been completed for the first annual convention of the National Plant Food Institute, to be held at The Greenbrier, White Sulphur Springs, W. Va., June 10-13.

More than 1,000 persons representing fertilizer manufacturers, material producers and others will attend meetings of the Institute, the program for which will feature prominent leaders in the field of government, industry and agricultural communications. Sen. J. W. Fulbright (D., Ark.), chairman of the Senate Committee on Banking and Currency, will give the principal address on June 12.

Meetings of the executive committee and board of directors of the Institue will be held on June 10 and the first general session will follow on June 11.

J. A. Howell of Richmond, Va., president of the Institute, will preside and the following speakers will be heard on June 11:

Russell Coleman, executive vice president of the Institute will give a visual presentation on "One Year of Service."

Dr. J. M. Bohlen and Dr. G. M. Beal, associate professors of rural sociology, Iowa State College, will give a visual demonstration on "Who Influences the Farmer?"

Glenn R. Fouche, president, The Stayform Co., Chicago, will speak on "Dramatize Your Selling."

A business meeting of the research and education committee will be held in the afternoon of June 11.

Mr. Howell also will preside at the sessions on June 12, which will feature:

The premiere showing of the In-

(Continued on page 25)

Stimulus for Plant Food Sales Seen in New Farm Measure

By JOHN CIPPERLY
Croplife Washington Correspondent

WASHINGTON—Congress has passed a farm bill which may contain a substantial stimulus to sales of plant food materials this year.

One section of the measure, as interpreted by the U.S. Department of Agriculture, says that producers in the commercial corn belt are eligible for price support of 86% of parity, or $1.50 bu., if they keep their acreage within a proportionate share of a 43 million acre allotment.

In a later provision, the bill states that there will be an acreage allotment for the commercial area of 51 million acres, and that, if practical, farmers must comply with the soil bank this crop year for corn. This would mean withdrawing up to 15% of the land from production to obtain the $1.50 bu. support.

The controversial issue of USDA now that Congress has acted is whether or not USDA will permit commercial corn belt farmers to comply on the original 43 million acre allotment or the higher 51 million acre allotment to participate in the soil bank programs.

The congressional action leaves a wide open discretion to USDA. One section of the bill says there will be no acreage allotments for the 1956 crop of corn. Another, part of the soil bank, states that corn farmers in the corn belt if they wish to obtain soil bank protection must reduce their acreage by 15% over the years 1953-54-55.

Congress modifies that decision, saying that such a conclusion may be changed by USDA if that agency decides such an order is impracticable.

The government loan program of corn in the commercial corn belt of $1.50 bu. for compliers with acreage allotments and $1.25 bu. for the non-compliers means little less than money in the bank for all corn farmers except those who are growing corn on the worst possible land.

Approximately the same general conditions will apply under the new farm law as to oats, barley, rye and

(Continued on page 25)

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State Acreage Allotments for Wheat Announced

WASHINGTON—State wheat acreage allotments for the 1957 crop were announced May 16 by the U.S. Department of Agriculture. The state allotments represent each state's share of the national wheat acreage allotment of 55 million acres announced on May 15.

Kansas, with 10,615,188 acres, has the largest state allotment. Other leading wheat states, with their allotments are: North Dakota, 7,327,856 acres; Oklahoma, 4,878,623 acres; Texas, 4,149,071 acres; Montana, 4,042,623 acres; Nebraska, 3,234,827 acres; Colorado, 2,766,025 acres; South Dakota, 2,746,578 acres; and Washington, 1,994,450 acres.

State allotments are based on wheat acreages for the past 10 years, with adjustments for planting trends, weather and other factors. Since this formula provides for the establishment of state acreage allotments in line with recent wheat production patterns, the 1957 allotments in principal wheat producing states do not differ greatly from those established last year, when the national allotment was also 55 million acres, stated USDA officials.

Each wheat producer will be informed of the acreage allotment for his farm in advance of the wheat marketing quota referendum on July 20. A two-thirds vote approving the quotas is necessary if the quotas are to be in effect.

As authorized by legislation, those states having wheat allotments of 25,000 acres or less have been de-

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Alabama Approves Three New Grades, Discontinues Four

MONTGOMERY, ALA. — Three new grades of fertilizer were approved and four were discontinued in action taken by the Alabama Board of Agriculture and Industries here recently. Mixtures added included 4-8-16, 0-10-20 and 6-24-24, while those ordered dropped were 6-8-4, 5-10-5, 0-12-20 and 3-9-9.

Grades continued were 8-8-8, 4-12-12, 4-16-8, 4-10-7, 6-8-8, 0-14-14, 0-16-8, 14-0-14 and 8-8-2 (for fishponds only).

Under existing regulations, higher multiples of any approved grades will be accepted for registration and sale in the state. The revised list becomes effective Oct. 1, 1956.

About 150 representatives of the State Agricultural Experiment Station and the fertilizer industry were in attendance.

Maryland Group Told About Need for More Support of Fertilizer Safety Program

By LAWRENCE A. LONG
Editor of Croplife

BALTIMORE, MD.—A day-long ogram devoted to safety in ferti-er plants was featured at the overnor's Safety-Health Conference ld here May 10-11. Subjects dis-ssed included fires in fertilizer ants, safe handling of pressure gas linders, organizational safety set-s in manufacturing plants and a view of recent accidents. Speakers mprised representatives of a num-r of Baltimore fertilizer firms, safe-directors of two out-of-state com-nies, a representative of the Na-onal Plant Food Institute, Wash-gton, D.C., and the general chair-an of the fertilizer section of the ational Safety Council.

In charge of the morning session as A. B. Pettit, administrator of dustrial Health and Safety, Davi-son Chemical Co., division of W. R. Grace & Co., Baltimore. In his introductory remarks, he outlined the progress made in the fertilizer safety field and expressed appreciation of safety officials for the outstanding cooperation of many in helping to promote the cause of safety throughout the fertilizer industry.

Curtis A. Cox, assistant manager, manufacturing department of the fertilizer division of Virginia-Carolina Chemical Corp., Richmond, general chairman of the fertilizer section of the National Safety Council, gave the group of nearly 200 some pointers on "Planning for Safety."

He said that such a plan must in-

(Continued on page 21)

Southern Control Officials to Hold Meeting in Roanoke

ROANOKE—The program has been announced for the 14th annual convention of the Association of Southern Feed and Fertilizer Control Officials. The sessions will be held at Hotel Roanoke here June 28-30.

Officers of the association are M. P. Etheredge, State College, Miss., president; R. W. Ludwick, State College, N.M., vice president, and Bruce Poundstone, Lexington, Ky., secretary-treasurer.

Included in the program are these topics and speakers:

June 28—"Southern Standards," by Mr. Etheredge; a talk by Russell Coleman, executive vice president, National Plant Food Institute, Washington, D.C.; "The Legal Framework for Regulatory Control," John D. Conner, Sellers & Conner, Washington.

June 29—"The Control Official and His Services to Agriculture," L. B. Dietrick, dean of agriculture, Virginia Polytechnic Institute, Blacksburg, Va.; "How Industry Can Cooperate with Control Officials and Agricultural Workers," L. Y. Ballentine, North Carolina commissioner of agriculture; "Factors Affecting Efficient Fertilization," H. L. Dunton, head of the agronomy department, Virginia Polytechnic Institute; "Recent Developments in Nematodicides," M. A. Manzelli, Virginia-Carolina Chemical Corp., Richmond.

The banquet speaker the evening of June 28 will be Parke C. Brinkley, Virginia commissioner of agriculture.

Other speakers during the two days will discuss topics of interest to the feed industry. A round table discussion on pesticides is scheduled for 4 p.m. June 29.

California Scientist to Survey Medfly Outbreak

SACRAMENTO—W. C. Jacobsen, California director of agriculture, has assigned Charles V. Dick, chief of the division of plant industry, to make a first hand survey of the Mediterranean fruit fly situation in Florida.

Mr. Jacobsen acted upon receiving word from Edward Ayres, Florida plant commissioner, that the Mediterranean fruit fly, a major pest of citrus fruits, has been found infesting about ten square miles of noncommercial fruit growing municipal property at Miami.

KANSAS FIELD DAY

MANHATTAN, KANSAS—The annual spring field day at the Ft. Hays Branch Experiment Station of Kansas State College and the 12th annual wheat field day will be held June 8.

Albert L. Taylor Named Head of USDA Nematology Research

WASHINGTON — Changes in leadership of plant nematology search have been announced by U.S. Department of Agriculture.

Dr. Gotthold Steiner, a specialis this field in the department for years and head of USDA work nematodes for the past 24 years, tired April 30 at the age of 70. Al L. Taylor, of the Horticultural C Research Branch in USDA's Agri tural Research Service, succeeds Steiner as head of the branch's ne tology section at Beltsville, Md.

Mr. Taylor began work for the partment in 1935 as junior nemat gist in charge of a field labora that had just been established Tifton, Ga. He has done research administrative work for the dep ment up to the present time exc for three years in industrial rese on methods of control of nemat through soil fumigation.

He is the author or co-author many scientific papers and report the field of nematology. Born Florence, Colo., in 1901, he is a gr uate of George Washington Uni sity and took graduate work at Jo Hopkins University in parasitol bacteriology and statistics.

Dr. Steiner was born in Switz land and received his scientific tra ing at the University of Berne the University of Zurich. Before tering USDA he held a research lowship at Yale University. He now been given the opportunity carry on nematode research at Puerto Rico Experiment Station will leave for Rio Piedras ab June 1.

It is estimated that the wor covering nematode pest causes c losses of 500 million dollars annua in the U.S. alone. The nematol section headed by Mr. Taylor is sponsible for research at eight gional field laboratories locat throughout the country to stu these pests on particular crops different areas—sugar-beet nemat in Utah; bulb and stem nematode Oregon; peanut and sweetpot nematodes in Georgia; cotton nem tode in Arizona; golden nematode potato on Long Island; citrus a vegetable nematodes in Florida.

Other laboratories have been set recently in Alabama, Louisiana a Wisconsin, and it is anticipated t work will be expanded to new are this year.

Frontier Increases Price Of Benzene Hexachloride

WICHITA—Frontier Chemical recently announced an increase the price of benzene hexachlori technical, 13 to 15% gamma isom

Effective May 15 the price on spot shipments was increased fr .7¢ per gamma unit to .75¢ per ga ma unit. Effective June 1 the pr on all contract shipments will be creased from .7¢ to .75¢ per gam unit.

"These increases in price are ma necessary by increases in the cost raw materials and labor and t necessity for providing a small ma gin of profit," M. E. Clark, vice pre dent—marketing, said.

BINDWEED MENACE

LUBBOCK, TEXAS—Bindweed, its way south from the Panhandle becoming a menace in this fertile, rigated area. At a recent meeting the Lubbock County Soil Conser tion District supervisors, a resolut was passed asking the county co missioners, Texas State Highway D partment and the Santa Fe Railw to assist and cooperate in eradicati bindweed along the highways a railroad. The expense of ridding pr ate lands of the noxious plant wou be paid by the land owners.

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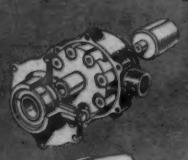
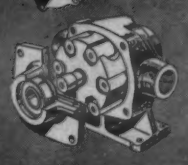


SERIES 7500 PUMPS, with ¾" ports, have 8 nylon rollers and deliver 6 gpm at 350 lbs. pressure (600 rpm). An all-purpose pump for farm use.



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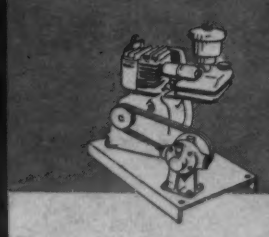

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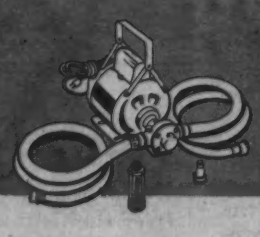

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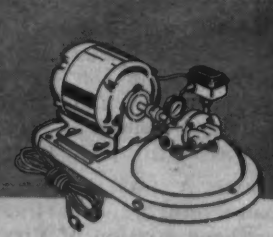

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INSECT, PLANT DISEASE NOTES

Numerous Cutworms Noted in Missouri

COLUMBIA, MO.—Cutworms "of all kinds, shapes and sizes" were being found in Missouri during the week ending May 19. Bronze cutworms were showing up particularly in pastures from the Missouri River north to the Iowa line. Control was described as difficult, mainly because of problems resulting from residues.

Variegated cutworms were expected to show up in alfalfa fields, soon. Cutworm damage to corn has been light thus far, but farmers were warned that damage is likely to show up at any time.

Armyworms were reported as heavy in some fields of small grain and pasture. They are mostly confined to rankest growth.

Orchard Insects Busy, Indiana Report States

VINCENNES, IND.—To date, rosy aphids and red-banded leaf roller have caused more injury to apples in this area than other pests have, although their activity has been localized. Rosy aphids, where present, are still active. In certain orchards red-banded leaf roller populations are high enough to warrant insecticide applications.

Adult emergence of codling moth in overwintering cages was high during May 12 and 13 when maximum temperatures were 86 and 88 degrees F. As near as can be determined, between 10 and 12% of the overwintering larvae have emerged. Between 30 and 50% have pupated and between 40 and 50% are still in the larval stage.

European red mites are abundant enough in orchards that had a crop in 1955 and did not receive a dormant spray in 1956 to warrant the inclusion of a miticide in the next spray application.—D. W. Hamilton.

Aphids Continue to Threaten Kansas Alfalfa

MANHATTAN, KAN.—During the week ending May 19, non-economic to light infestations of spotted alfalfa aphids were found in nearly all alfalfa fields that were surveyed in the Arkansas River Valley in southwest Kansas from the Kansas-Colorado line eastward to Great Bend, Barton County. Aphid counts in this area generally ranged from 5 to 10 per sweep; however a few fields contained populations up to 50 per sweep. About 40% of the aphids collected were winged.

The northern line of distribution begins in the west in Hamilton County and extends east and north through the following counties: Kearny, Finney, Gray, Ford, Hodgeman, Edwards, Pawnee, Barton, Rice, McPherson, Saline, Dickinson, Morris, Geary, Riley, Pottawatomie, Wabaunsee, Shawnee, and the southwest corner of Jefferson. Populations of spotted alfalfa aphids in the previously heavily infested area of southeastern Kansas are now temporarily under control by the numerous lady-bird beetles and other natural predators. Some fields appear to have more lady beetles and larvae than aphids.

Nymphal grasshopper infestations continue to develop in counties of southwest Kansas. Counts in Hamilton, Kearny, Finney, Gray, Ford, and Edwards counties generally averaged 15 to 35 (nymphs) per square yard. The nymphs are confined to hatching beds along field margins, roadside ditches, fence rows, and weed patches. A check of fields of north central Kansas last week showed that this season's hatch is now in progress over most of the entire state.

Nymphal grasshopper populations are increasing in areas of south central Kansas and a few winged adult lesser migratory grasshoppers (Melanoplus mexicanus) were found in Wilson County. Counts generally ranged 15 to 35 per square yard (nymphs) and in some areas, highs of 100 nymphs per square yard were recorded.—Dave Matthew and Dell Gates.

Alfalfa Weevil Damage Hits Peak in Maryland

COLLEGE PARK, MD.—Alfalfa weevil damage seems to be at its height in Montgomery county. In unsprayed fields damage is severe and there are as many as 250 larvae per sweep. Results in sprayed fields are spectacular. There are now very few adults but the new generation will appear soon as larvae are spinning coccoons. Sweet clover mixed with other legumes is infested with alfalfa weevil.

Spittlebugs are showing up abundantly in clover and spraying has been general. Lesser clover leaf weevils are injuring red clover with larvae feeding in leaf bracts, and flower heads. Control of this insect has not been worked out.

Armyworms in small numbers were found in barley in St. Mary's county recently (May 18) and a few moths are appearing at lights. It is about time for armyworms to show on the Eastern Shore.

Numerous vegetable insects were found in southern Maryland this week—flea beetles on cabbage, potatoes, radish, and sweet corn; imported cabbageworms on cabbage; thrips on onions; Colorado potato beetles on potatoes; and springtails on radish. A garden in Baltimore was well infested with sowbugs.—Thomas L. Bissell and W. C. Harding, Jr.

Corn Borer Infestations Anticipated in Illinois

URBANA, ILL.—Corn borer pupation began recently (May 18) in central Illinois and can be expected to start next week in northern Illinois. With corn already up in many areas, we can expect severe infestations of borers throughout the northern half of the state, particularly in the area north of Highway 36. DDT treatments on much of the earlier planted corn may prove profitable this year, and plans might well be made right now to be ready when the time comes. Judging from present borer development, this will be approximately June 20 to July 10, progressing from central to northern Illinois.—H. B. Petty.

Texas Cotton Farmers Warned Against Insects

WACO, TEXAS—Central Texas farmers can expect a heavy insect infestation this year, according to Dr. Charles Parencia, in charge of Waco cotton insect laboratories.

Delayed planting will cause insects to strike cotton fields while

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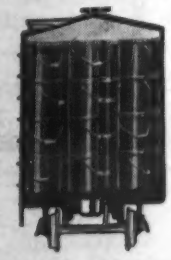

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ants are small, he said. Already rips, flea-hoppers and over-win-red boll weevils are being found cotton, and they are expected increase rapidly.

Dr. Parencia advises farmers to ctice early season control meas-s, suggesting that the first dust- or spraying for boll weevils uld be applied by the first of e. After June 10, insecticides uld be used only after field checks e shown an infestation of harm- insects, he says.

rasshoppers Hatching ver Wide Area in Iowa

AMES, IOWA—Lesser migratory sshoppers have begun hatching in southern half of Iowa. Average pulations ranged from 1 to 2 per are yard in Warren and Madison unties to 3 to 5 per square yard Union and Clarke Counties. The gs of the differential grasshopper still 3 weeks from hatching in ion County.

Potato leafhopper is now present alfalfa throughout the south ⅔ Iowa, ranging from 1 to 4 per 10 eeps.

Pea aphid populations are build-g up rapidly. Numbers range om 20 per sweep in the south ⅓ 5 per sweep in central Iowa. ady beetles averaged 3 per 10 weeps throughout the area. If the eather stays cool, these and other redators work slowly.

Clover leaf weevil larvae range om 1/16 inch to almost ½ inch long. umbers are generally low. Few lds will have the 6 larvae per plant hich justify control.

Sweet clover weevils are attacking w seedings. Chemical control has arted.—Harold Gunderson.

amage by Insects aid to be Increasing

FT. COLLINS—The month of May as brought with it an increase in maging activity by insects invad-g the state's farms and ranches, cording to the weekly insect report repared by the Colorado Insect De-ection Committee.

Adult codling moths have start-ed to emerge in large numbers in both eastern and western Colora-do; adult tomato psyllids are pre-sent in large numbers throughout tomato growing areas; and the to-mato fruit worm has made its ap-pearance in Otero county, where it is believed to have overwintered.

Alfalfa weevil, the report states, ppears to be establishing a firm foot-old in Otero county, where it was ound for the first time last year. Up o that time, there had been no wee-vil infestation in the Arkansas Valley. Growers there were warned that the est appears to be building up in numbers.

Summarizing other insect activity n the Arkansas Valley, the report oted that army cutworm adults are appearing in light numbers, as are he moths of sugar beet webworm.

An insect that is new to the state nd represents a threat to sugar eets, forage and truck crops has een reported in increasing numbers n the valley. It is known as clover cutworm or striped beet caterpillar.

Large numbers of pea aphid have een reported generally throughout the farming areas of the state.

American Cotton Congress To Meet May 31-June 2

LUBBOCK, TEXAS—One of the highlights of the 17th annual Ameri-can Cotton Congress from May 31 to June 2 will be an address by one of the world's foremost cotton ex-perts. He is Lamar Fleming, who is board chairman of Anderson, Clayton and Co. His subject will be "The World's Cotton Situation."

Also to take a prominent part in the meeting will be Marvin L. Mc-Lain, assistant secretary of agricul-ture.

Favorable Weather Gives Boost to Crops In Mid-South States

MEMPHIS—Cotton is up to good stands in many counties of the Mid-South.

Extension officials in Arkansas, Mississippi, Missouri and Tennessee said in their weekly crop reports that cotton and other crops improved during the week because of good weather. Replanting of cotton has been completed.

Insects, such as army worms, thrips and boll weevils, caused the farmers less worry last week, but still did some damage to grains and cotton.

One of the bright spots in the Mid-South was the success of the strawberry crop. Judd Brooks, West Tennessee District agent at Jackson, said the crop this year was one of the best.

Strawberries in Arkansas have been excellent this year, too.

C. A. Vines, associate director of the Arkansas Agricultural Extension Service at Little Rock looks for a "big increase" in soybean production in Arkansas this year.

Reduced cotton and rice acreages have caused a turn to soybeans on an ever-increasing scale, and Mr. Vines said he believed this year will see another increase. Soybean plantings were getting under way in some sections.

Mr. Vines said cotton and rice plantings are about complete throughout the state, and that farmers now need "some good hot weather" to get crops on their way.

Prospects are good for most crops in Mississippi, according to the Mississippi Agricultural Extension Service.

Cotton and corn are up to good stands throughout the state, county agents reported.

Thrips are moving out of grain into cotton, said David Young, Jr., assistant extension entomologist. Some farmers who have applied insecticides once or twice to control these insects may find a third application necessary. Boll weevils have been reported on seedling cotton in Southwest Mississippi and Holmes County.

Crop prospects are good in Southeast Missouri, the extension service said.

Cotton and beans look good, W. F. James, Pemiscot County agent, reported. Many people are chopping cotton, and are finding it easy as there is very little grass in fields, he said.

"An implement dealer told me he was selling more disc hillers than usual, and that indicates more interest in cross plowing," he said.

Army cut worms have been causing some trouble in small grain and in alfalfa, the county agent said. Now that the hay is being taken off, farmers should spray their cotton to keep cut worms from bothering it, Mr. James warned.

VIRTUALLY NON-TOXIC

Proved Safety Factor Underscores Importance of Pyrenone* For Farm Crops

As a result of recent federal legislation, specific standards of safety have been established for the application of pesticides to food crops.

Object of this legislation, popularly known as the Miller Bill, is to safeguard the public health.

Under the Miller Bill, Pyrenone (technical *piperonyl butoxide* and *pyrethrins*), CPR dusts and sprays (combinations of *piperonyl cyclonene, pyrethrins* and *rotenone)*, Pyretox, pyrethrum and rotenone are exempt from the requirements of a *tolerance* — when applied to growing crops. They may be used right up to the time of harvest.

With respect to the application of dust and spray protectants to stored grains, *piperonyl butoxide* has an approved tolerance of 20 p. p. m. . . . and *pyrethrins* a tolerance of 3 p. p. m. These two chemical agents are the active ingredients of the Pyrenone protectants. Yet the quantities specified for use in the package directions are less than the tolerances granted under the Miller Bill.

This season use Pyrenone and play safe. It protects both the crops — and the farmer's crop investment! For complete technical data, write the nearest office of Fairfield Chemical Division, Food Machinery and Chemical Corporation.

*Reg. U. S. Pat. Off., F. M. C.

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Program Set for Meeting of Delmarva Fertilizer Group

OCEAN CITY, MD.—Dr. H. L. Dunton, head of the agronomy department, Virginia Agricultural Experimental Station at Blacksburg, Va., will be the principal speaker at the 35th annual convention of the Delmarva Peninsula Fertilizer Assn. June 30 in the George Washington Hotel at Ocean City, Md.

This convention, open to all farmers and wives, will also feature representatives from the National Plant Food Institute, who will discuss new developments and trends in fertilizer application and use.

Dr. Dunton, a native of Exmore, Va., has served as a county agent, extension agronomist, soil conservation technician, state certified seed adviser and as a member of the Virginia Fertilizer Advisory Committee. He will speak on the subject, "What Every Fertilizer Salesman Should Know."

The Delmarva Peninsula Fertilizer Assn., comprised of Delmarva fertilizer manufacturers, meets periodically to discuss means of helping the local farmers to earn more profit per acre. Salesmen and fertilizer agents are expected to attend the convention. In addition, agronomists, soil technicians, county agents, and fertilizer inspection control officials will be present.

Of special interest this year will be the presentation of an award to be given to the person contributing most to the development of agriculture on the Delmarva Peninsula.

FARM MACHINERY DAY

URBANA, ILL.—Between 350 and 400 farm equipment dealers and company representatives are expected to attend the third annual Farm Machinery Field Day on the University of Illinois campus here May 29.

A. N. Wohlwend Named Commercial Development Director for Escambia

CAMBRIDGE, MASS.—The appointment of A. N. Wohlwend as director of commercial development for Escambia Bay Chemical Corp. was announced recently by R. U. Haslanger, vice president and general manager.

Prior to this appointment, Mr. Wohlwend was associated with Stauffer Chemical Co. in a similar capacity.

After graduating from the University of Michigan with a chemical engineering degree, he spent a number of years in the chemical industry in production, sales, market research and development.

Mr. Wohlwend is married, has one child and lives in Pelham Manor, N.Y. He will have his headquarters at the company offices, 261 Madison Ave., New York 16.

August Fertilization Returns $6 for $1, Says Texas Farmer

STANTON, TEXAS—Last year H. Yater set a trend in fertilizat that may soon spread across the c ton growing section of West Texas

Mr. Yater applied 200 lb. of fe lizer during the second week August, long after other farmers h stopped fertilizing. Even fertili dealers advised him against it.

When the cotton was harvest Mr. Yater had produced 60 bales cotton on 20 acres, which is an a record. At least another half bale acre had been lost to an unusua early freeze. The county average w similar soils and cotton varieties w only a bale and a half per acre.

"It was that last application of f tilizer that made the difference," M Yater said. "It brought me back least six dollars for every one spent."

This season several other farme will be putting out fertilizer in m summer to give cotton plants th final boost.

North Central Phytopaths Schedule Kansas State Meeting

MANHATTAN, KANSAS—Pla pathologists from 12 midweste states will be at Kansas State C lege June 5-6 for a North Centr regional section meeting of t American Phytopathological Societ according to C. O. Johnston, U.S. D partment of Agriculture pathologi stationed at Kansas State Colle and president of the North Centr section.

Summer meetings of the socie feature visits to experimental wor rather than the presentation papers, Mr. Johnston explains. Visi ing scientists will spend most of the time at the field plots at the pla pathology nursery, at the agronom farm an at Ashland Bottoms.

The plant pathologists will be we comed June 5, by Arthur D. Webe Kansas State's dean of agricultur and there will be a banquet tha evening at which James A. McCai president, will be principal speaker.

Between 150 and 200 plant pat ologists are expected to attend fro North and South Dakota, Nebrask Iowa, Michigan, Wisconsin, Minn sota, Indiana, Illinois, Ohio, Missou and Kansas.

Donald T. Fangmeyer Named Sales Manager Of Northern Chemical

BALTIMORE—Northern Chemic Industries has announced the a pointment of Donald T. Fangmeye as general sales manager. Mr. Fan meyer, a native of Baltimore, h since 1949 held various sales pos tions with Olin-Mathieson Chemic Corp., the latest of which was ma ager of the wholesale sales of t eastern fertilizer division. Since 195 he has been active in the sale anhydrous ammonia for both dire application and fertilizer mixing.

Mr. Fangmeyer received his B. degree in agronomy and soils fro the University of Maryland in 19 and was appointed a member of t honorary scholastic society Phi Ka pa Phi and the honorary agricultur fraternity Alpha Zeta. During Wor War II, he served overseas in t U.S. 69th Division.

In his new post Mr. Fangmey will be concerned with sales of a hydrous ammonia, nitrogen solution sulphate of ammonia, superpho phates and liquid alum in the Nort east area including eastern Canad His headquarters, effective June will be at N.C.I.'s Searsport, Mai plant.

Stauffer Dust Bases are Production-tested for every factor that affects the Formulator's Profits

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NP

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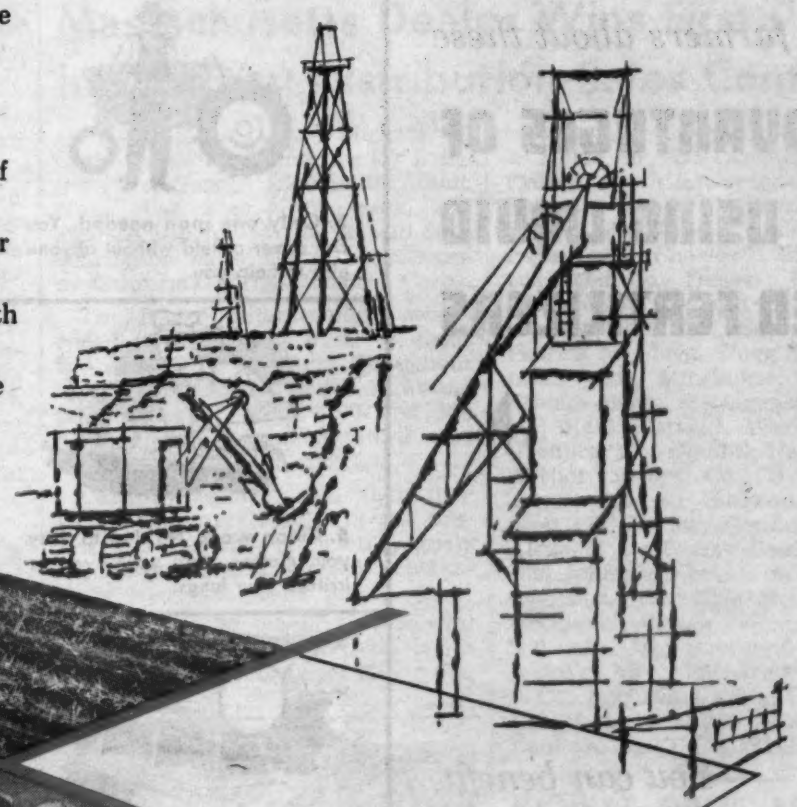
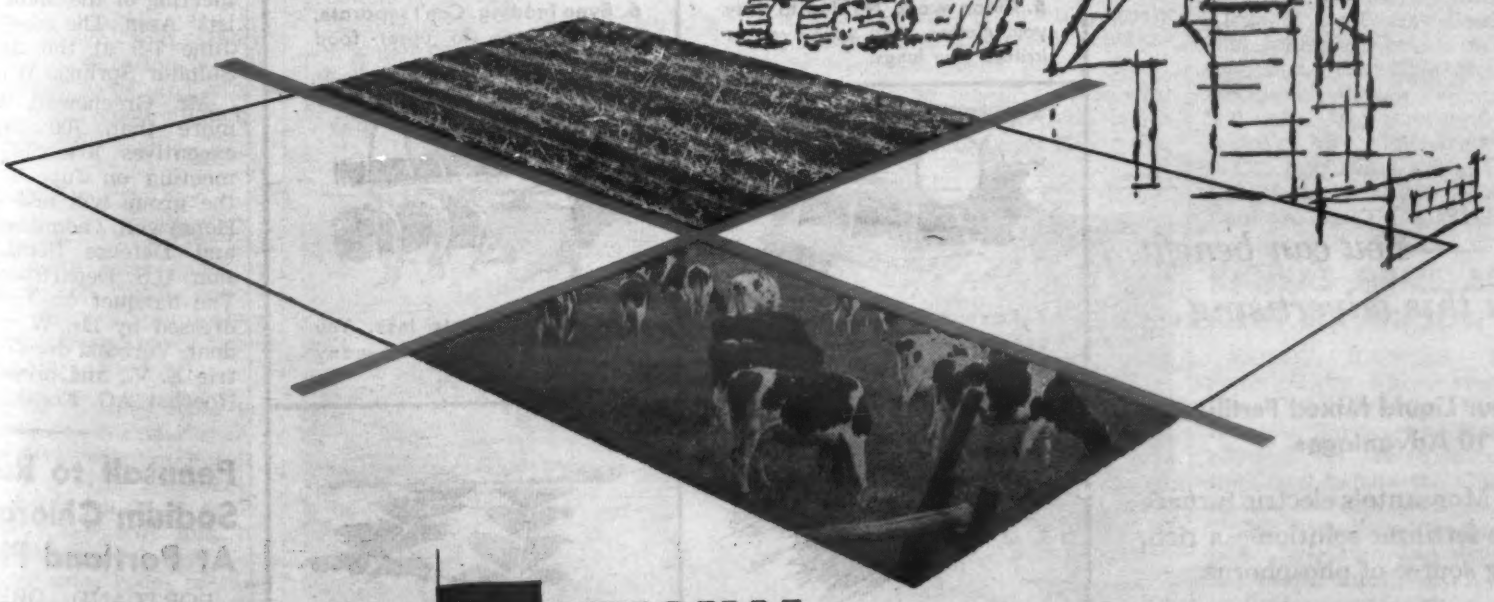
A new, substantial and dependable source of potash for fertilizer manufacturers is being developed by National Potash Company in New Mexico.

National Potash is a joint undertaking of Pittsburgh Consolidation Coal Company and Freeport Sulphur Company. The former is one of the nation's major coal firms, the latter a leading producer of sulphur with additional interests in oil and other minerals. The skills which they bring to the mining, refining and marketing of potash assure top quality, uniformity and service.





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WORLD REPORT

By GEORGE E. SWARBRECK
Croplife Canadian and Overseas Editor

Logarithmic Sprayer

Problems of application merit the urgent attention of the agricultural chemical industry for rough and ready methods of dispensing fertilizers and pesticides are things of the past. Precision is now the requirement of the farmer and firms in North America and in Europe are busy filling his need.

From Britain comes news of a spraying machine which has been dubbed "the logarithmic sprayer." It applies herbicides and insecticides at gradually decreasing concentrations with mathematical precision. The sprayer's main tank contains only water, which must pass through a subsidiary tank containing concentrated solution before passing out through the nozzles. It is also possible to vary the rate at which concentration of the spray decreases.

This means, the makers claim, that comparison of the effects of solutions varying gradually from highly concentrated to very dilute can be made over plots of varying length. Short-plot spraying may suffice for testing varying quantities of herbicide, but long-plot spraying will be necessary for work with insects because of their mobility, it is stated.

When the sprayer is used, a continuous graph of the effect of the chemical is produced on the plot itself. The line beyond which the crop is normal, and the line on the side of which weeds have been controlled, are the margins within which (subject to weather, stage of growth and the like) concentration of the chemical is assumed to be effective.

Indian Need

The International Cooperation Administration has published a requirement on the part of the Indian government for nitrogenous fertilizer and for a plant test kit for fertilizer. Value of the contract is $420,100 and the terminal delivery date is Dec. 31, 1956. The procurement will be carried out through the Emergency Procurement Service.

New Rhodesian Plant

The Rhodesian government is convinced that it is economically sible to start a nitrogenous fertil plant in Rhodesia. Recently, the thorities engaged an expert, C. Roskill, to examine the potentiali Mr. Roskill has reported favor and has suggested several sites. H ever, no decision will be made u further surveys have been car out.

Pennsalt in Mexico

As an integral part of its proj ed five-year growth program, Pennsylvania Salt Manufactur Co. has announced further expans of its operations in the Republic Mexico. Nearing completion at vojoa, Sonora, in the northwest area is a new agricultural chemi processing plant and distribution c ter. This plant provides an expans of Pennsalt de Mexico's central pl and office facilities in Mexico C and establishes another base for eventual distribution of the co pany's full line of more than chemicals for industrial, farm a home use in the rapidly expandi economy of the West Coast of Mexi

Yugoslavian Fertilizer Plans

The government of Yugoslav mindful of the need to develop ag cultural production, is paying clo attention to fertilizer needs. In 19 the industry was producing 72,7 tons of fertilizer; by 1954 the to was 120,605 tons. By the end of Se tember, 1955, the output for the nin month period was 151,130 tons.

Potassic fertilizers have to be i ported, but domestic production both phosphatic and nitrogenous m terials is increasing steadily. Ad tionally, an increase in sulfuric ac production is planned so that mo superphosphate may be produced.

MCA to Hear Talk by Crawford H. Greenewalt

WASHINGTON — Crawford Greenewalt, president, E. I. du Po de Nemours & Co., Inc., will be th principal speaker at the 84th annu meeting of the Manufacturing Chem ists' Assn. The meeting will be he June 7-9 at the Greenbrier, Whi Sulphur Springs, W. Va.

Mr. Greenewalt will address th more than 700 chemical industr executives attending the busines meeting on June 7. The same da the group will also hear Charles Honeywell, administrator, Busines and Defense Services Administr tion, U.S. Department of Commerc The banquet on June 8 will be ad dressed by Dr. W. A. Menne, pres dent, Verband der Chemischen Indu trie E. V., and president, Farbwerk Hoechst AG, Frankfurt, Germany.

Pennsalt to Replace Sodium Chlorate Cells At Portland Plant

PORTLAND, ORE. — Officials the Pennsylvania Salt Manufacturi Co. have announced intention to im mediately replace sodium chlorat cells at the company's Portland, Or plant. Utilizing an improved electr lytic cell developed by Pennsalt tec nical and operating personnel, th new facilities are expected to go o stream early next year, the firm sai

Company spokesmen said that th improvement project is part of a $ million "program for future growth which Pennsalt inaugurated late la year. Projects previously announc include plant expansions at Tacom Wash.; Wyandotte and Riverview Mich.; Calvert City, Ky., and Paul boro, N.J.; the development of fluorspar mine in Kentucky and sol salt harvesting facilities in Utah.

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How? Use Monsanto's electric furnace phosphatic fertilizer solution—a rich, full-feeding source of phosphorus.

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For complete technical and business data on liquid mixed fertilizers, phone our local office or write: Inorganic Chemicals Division, MONSANTO CHEMICAL COMPANY, Dept. CL-2, 710 North Twelfth Boulevard, St. Louis 1, Missouri.

1. Faster application. You cover more acres per hour.

2. Costs less to fertilize. Make worth-while savings on plant food, time and labor.

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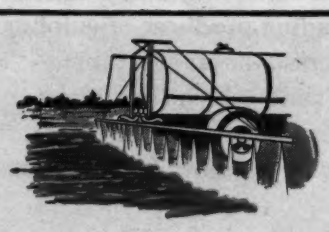
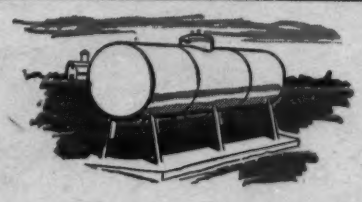
5. Clean work. No dust to dirty your clothes, sting your eyes, or irritate your lungs.



6. Even feeding. Can't separate, cake or lump to upset food balance or block flow.



7. Easy storage. Weather-proof, storage tank can be placed anywhere.

8. Equipment costs less. You can make, rent or buy many types of applicators.

9. Plant food goes where you want it. Heavy or light; deep, surface or side-dress.

10. Perfect irrigation. Nothing to dissolve. Liquid mixed fertilizer flows into system.

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A SPECIAL CROPLIFE DEPARTMENT TO HELP RETAILERS IMPROVE MERCHANDISING KNOW-HOW

SHOP TALK OVER THE COUNTER FOR THE DEALER

By EMMET J. HOFFMAN
Cropilfe Merchandising Editor

Newspaper readership studies have shown that advertising featuring local names, local photos, store information and home-written copy outpull "canned" mat ads by two to one and even more.

Farm folks like to read about people they know and do business with. A local angle in the dealer's advertisement is the common denominator which appeals to the prospective customer.

Most dealers won't admit to being advertising layout men and copy-writers. They do not need to be if they call on the help of their local newspaper's advertising representative. In nearly all cases they will be more than happy to provide ideas and help in working out local ads.

One large manufacturer for the farm market recently instituted a unique program indicating the importance it attaches to home-prepared newspaper advertising, even though the company has an extensive "canned" mat service available for dealers.

The company has delegated a prominent member of its advertising staff to attend all state press association meetings and discuss how local advertising can pay off for dealers as well as the newspaper. In his talks the representative emphasizes the advantages of locally-prepared newspaper ad copy. He suggests that newspapermen get better acquainted with the dealers in their home towns. Dealers, on the other hand, are urged to call on newspaper staff members for help in building local ads.

It has been shown that where newspaper-dealer cooperation is outstanding, increased sales and store traffic result from good, punchy, hard-selling local ads.

What's Enough Sales Space?

Lack of adequate sales room is hampering sales and profit opportunities of many farm supply dealers who handle fertilizer and other types of farm chemicals.

A 30 ft. by 30 ft. sales room is considered adequate for the average dealer of farm supplies but it should not be less to do a respectable merchandising job. Most dealers with less space will find it possible, without too much expense, to enlarge their sales room to the desired size. Often merely moving a wall can do the job.

Paint works wonders inside a store. It can change a drab sales room into a lively, inviting place. Next time you are in a supermarket take a look at the color combinations. Notice how inviting and pleasing the walls and ceilings look.

What about your displays? Is there enough display space? Could you use shelving about five feet from the floor so that open sacks of fertilizer can be placed below it, prominently identified and price-marked. Sacks placed on platforms set them off even more and make it easier to sweep the floor.

Remember, prospective customers can't buy what they can't see. Merchandise displayed so it can be seen, felt and handled tends to do its own selling. Again referring to supermarket practice, one notices the obvious efforts made to keep merchandise within ready sight and easy reach of the customer.

Good and Bad Advertising

"Advertising is not magic," warned Frank B. Senger, Michigan State University advertising professor, at the Michigan Pest Control Operators Conference at East Lansing, Mich.

Advertising has limitations, Prof. Senger said. He cautioned, "Advertising cannot sell a bad product, it cannot carry the whole load, it is only a link in the whole merchandising chain. But properly done, it will prove to be the most dynamic and powerful force that you can use to sell more products or services."

Used consistently and properly, newspaper advertising can do the best job of all advertising media, declared Prof. Senger.

"The best place for advertising to

(Continued on page 15)

WINS TRIP TO HAWAII—Dr. Robert E. Wallace, district manager of California Spray-Chemical Corp., is shown above presenting an announcement telegram to Mr. and Mrs. Michael G. Curley as Robert Harrison, president of Erikson Farm Supply, Inc., South Acton, Mass. looks on. Mr. Curley won first prize of a trip to Hawaii for two in a Calspray sales contest.

Massachusetts Dealer Wins First Prize In Calspray Distribution Sales Contest

RICHMOND, CAL. — Michael G. Curley, sales representative for Erikson Farm Supply, Inc., South Acton, Mass., has won a two-week, all-expense trip for two to Hawaii in a distributor sales contest sponsored by California Spray-Chemical Corp.

The future order contest, which ended in April, was open to about 500 distributor salesmen throughout the U.S. In addition to the Hawaiian trip, prizes of $150, $100 and $50 were given to second, third and fourth place in each district.

Calspray officials said that they were happy over results of the contest, and that sales of Ortho products to dealers have increased substantially over last year's record.

In addition to the first place winner, prize winners were John Keith and Barry Dickson, Capel Klang Co., and Leonard Myers, Union Hardware & Metal Co., Los Angeles; Norman French, Lawn & Garden Supply Co., Phoenix; John Sherman and Ben Mason, Tri-State Chemical Co., El Paso, Texas; Charles E. Ogden, Western Seed Co., Denver; Kenneth O. Hansen and Kenneth O. Tolpingrad, Porter-Walton Co., Salt Lake City; Patrick H. Slugg, Slugg Seed & Fertilizer Co., Milwaukee; Fred R. Trump, Behm & Hagemann, Peoria, Ill.; Karl Ristvedt, Warren-Douglas Chemical Co., Omaha; Nathan Hines, Anchor Serum Co., San Angelo, Texas; Roger Simmons, Magnolia Seed Co., Dallas; Gerald W. Creed, Alexandria (Texas) Seed Co.; Hershel Johnson, Nor-Ala Seed Co., Birmingham, Ala.; Sam McGuire, C. E. Heckle Seedsmen, Memphis; R. C. Roberts, Jr., Southern Seed Co., Jackson, Miss.; Richard Palmer, Zehr & Co., Pettisville, Ohio; Harry Baker and Marvin Vanden Bosch, John A. VanDen Bosch Co., Zeeland, Mich.

MORE CORN—James Andrew, Jefferson, Iowa anhydrous ammonia dealer, is shown above inspecting results of an ammonia test demonstration conducted on the Monthei Bros. farm in Green County, Iowa. In one area of a field where ammonia was side-dressed at the rate of 150 lb. per acre, yield was increased from 41 to 78 bu. despite severe drouth in latter June and July. This area was on sandy loam. Over the entire field, including even sandier areas, the yield increase due to the ammonia fertilization averaged 20 bu. The photo and yield results were furnished by Lloyd Dumenil, Iowa State College agronomist. Mr. Andrew is a director of the Agricultural Ammonia Institute.

KANSAS FIRMS ADD OLIN MATHIESON LINES

COLBY, KANSAS — Four Colby firms, Colby Farm Machinery Co., Wm. Nikl Produce Inc., Williams Aviation Service and Dougherty Implement Co., have announced that they now handle the Olin Mathieson Chemical Corp. products.

The firms now can engineer complete irrigation and dry land farming needs, including all types of insecticides, herbicides, fertilizers and irrigating equipment. Aerial and ground applicators are available.

Fertilizer Teamwork Shown in Experiment

FARGO, N.D.—In a University of North Dakota experiment last year, comparing effects of nitrogen and phosphorus fertilizers on yield of wheat grown on corn ground, it was found that phosphorus alone at 35 lb. per acre increased the wheat yield by 3.7 bu. an acre.

Addition of 20, 30, 40 or 50 lb. of nitrogen per acre to the 35 lb. of phosphorus resulted in yield increases of 6.9, 7.4, 9.4 and 11.4 bu. per acre respectively.

Doing Business With

Oscar & Pat

In mid afternoon one warm spring day, Gil White's truck stopped in front of the Schoenfeld & McGillicuddy farm supplies store. Gil, a pudgy, overalled carpenter, who did mostly odd jobs around town, got out of the truck, came around to the back and dragged out two flat wooden boxes, with a two inch strip around the edges.

He carried these into the salesroom, which was separated from the office by a railing, then he put the pieces down and said to the puzzled, rotund Oscar, "Okay, Oscar, me boy, get out the old checkbook and give me one for $13.80."

"$13.80!" Oscar echoed coldly. "What for?"

"For these two boxes that Pat, your partner, ordered. Come on, don't stall. I got to live, too."

"$13.80—for those?" Oscar asked contemptuously. "Just a couple of pieces of lumber? If you fellows get prices like that I should sell out here, ach, and go into carpentering."

Pudgy Gil White bristled, and his face got redder. "Say, I'm not overcharging you. That's a fair price. Lumber is high nowadays. And look how nice these boxes are finished. Real slick. Why for the time I put on them, I'm hardly making $2.50 an hour, figuring I had to get the lumber, measure it up and pay for it, too."

"Huh," commented Oscar. "We could have had our men do that same job in spare time, with old scraps of lumber and saved plenty money. Trouble is somebody around here likes to spend too much money all the time."

"Yeah, and if your men would have made it out of old lumber, it sure would look homemade, too. It wouldn't sell any fertilizer."

"Sell fertilizer!" snapped Oscar. "Is that what Pat wants those boxes for?"

"That's what he said," growled Gil White. "But you argue that out with him. I was just hired to make the boxes. Now gimme my money an I'll get out of here."

"Two per cent discount?" Osca asked coldly.

"Discount—hell!" roared Whit "The prices I quote don't stand a dis count. What are you trying to pull?

"We take discounts on all ou bills," Oscar said sharply. "Ach especially on bills which we pay be fore they are due."

"Oh, all right, take the darn tw per cent," grunted Gil White irrita bly. "I'm glad I don't have to argu like this every place I do business I couldn't stand it."

"Discounts are important," Osca said firmly, writing a check. "Ever business can save lots of money tak ing them. You should learn that."

"Yeah, I learned something righ here today," Gil White muttered. " never want to get like that."

"What did you say?" asked Osca sharply.

"I said it's a nice day," Gil Whit said holding forth his hand to ge the check.

"Oh, Pat has to sign it, too," Osca said coolly. "We can mail it to you— if he comes in today. Do you wan to wait?"

"Wait for a $13.80 check?" asked Gil angrily. "No thanks. I'll go home and start work on another job. I've lost a half hour here already."

Oscar smiled and laid the check on Pat's desk. Gil White turned quickly and stomped out of the room. Tillie Mason, the plumpish bookkeeper, reached for an ulcer powder as she always did when arguments developed in the office. And they developed quite often.

When Pat McGillicuddy came in after a field trip later that afternoon he saw the boxes and the check. "Oh, I see Gil White was here, eh?"

"Yes, and he wanted $13.80 for those, those two boxes!" Oscar said sarcastically. "You are spending money again."

"Oh, but we will make money on that expenditure," Pat said enthusiastically. "Wait till I tell you about it."

"We make so much money we don't have time to collect what we've got out," Oscar said bitingly. "How about that?"

"Oh, I'll make some of those delinquent account calls next week," Pat said. "Now as to these boxes. One will contain about an inch of lime, and the other will contain an inch thick spread of fertilizer. I'll place these on top of one cleared island."

Oscar looked puzzled and hostile. "Why go to all that work?"

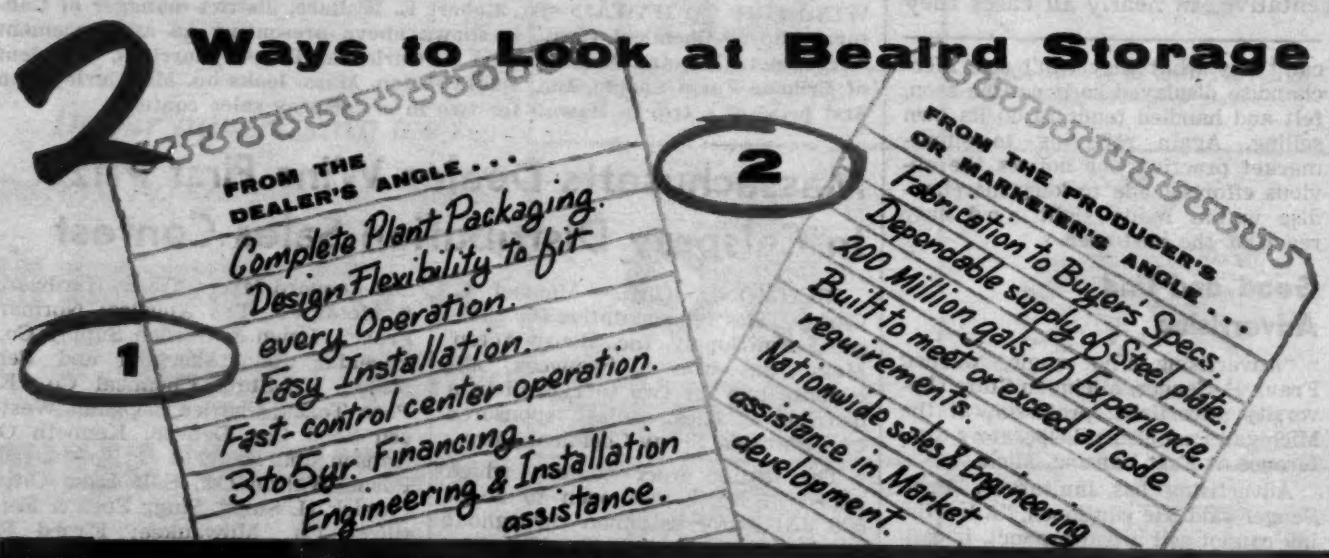
Pat sighed. "Because many farmers need more lime on their soils, and so do many gardeners. I'll have signs which will advertise this fact. The addition of lime helps crops utilize all the fertilizer. Why in Wisconsin, the state lab reports that out of 200,000 soil samples analyzed last year close to 60 per cent needed lime."

Oscar grunted impatiently. "Why don't you leave all that education stuff to the colleges? Ach, our job is to sell fertilizer and farm supplies, not to preach, preach, preach to farmers."

"No, you are wrong, Oscar," said Pat patiently. "There is a lot about lime and fertilizer that farmers don't know, even though they read a lot. Quite often a fertilizer dealer has to preach to farmers, to put better methods before them. That also helps sell more fertilizer."

"Maybe to people who can't o won't pay their bills," Oscar com mented practically.

"That hasn't too much to do wit it," Pat insisted. "If you throw ou a new idea to all farmers, a certain number will get it and use it profitably. Of those who use it some will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Complete Plant Packaging.
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Fast-control center operation.
3 to 5 yr. Financing.
Engineering & Installation assistance.
2
FROM THE PRODUCER'S OR MARKETER'S ANGLE . . .
Fabrication to Buyer's Specs.
Dependable supply of Steel plate.
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General layout of a Beaird Packaged NH3 Storage Plant
Write now for all the facts on Beaird Storage Tanks and completely packaged NH3 Plants . . . designed to meet your particular needs.
NEW INTEGRAL STORAGE PLANT
A complete Economy Package Plant that will unload from transport into storage, load from storage into field tanks, trailer tanks and applicator tanks.
THE J. B. BEAIRD COMPANY, INC.
BEAIRD
LP-Gas
Anhydrous Ammonia
Pressure Bulk Storage
Transports
Filling Station
Shreveport, Louisiana
Stockton, California
Beaird Midwest—Soon.

good pay, and some will be bad ay. In business, you always have to xpect some poor-pay customers."

"They may be poor pay," Oscar greed, "but that doesn't mean that ou have to leave them alone until ney get ready to pay you. You can lways call on them until they get o tired of seeing you that they pay ou in part or in full, ach, or maybe ive you a cow or a pig. If you would pend half as much time collecting s you do working up new ideas, ach, e would get along much better, nd have more money."

"If I did what you suggest, I ouldn't sell as much as I do, and o we would lose more than we would ain."

Oscar grunted. "That's how you igure," he said sarcastically. "I figure different. I like to see cash oney, not just promises on paper."

"A promotion like this one will ring in lots of cash business, Oscar," romised Pat. "We'll post the proper igns, set up a lime display, even in and 10 lb. bags for gardeners, group ome fertilizer bags around that sland and other garden supplies, and we will do business, extra business. And from both farmers and gareners, too."

Oscar looked up at his special sign n the wall, the one with a big bottle f red ink on it, the sign which Pat ad urged him in vain to remove.

"I will be watching you on this romotion," he promised. "Just like I watch your other promotions. Ach, and I will write you a note in red ink when the costs get higher than the rofit. You can bet I will not forget —not even for one minute. Someday I hope you will get some sense and let the customer come in by himself and buy—like he used to in the olden days."

Grasshopper Leads List of Worst Insects in Nebraska

The grasshopper has eaten his way to undisputed first place on the 1956 list of "10 worst insects" in Nebraska.

The rating was made by University of Nebraska entomologists on the basis of $2,420,000 in damage which the hoppers caused in the state last year, and on the probable damage to the 1956 crop.

However, those control measures which were taken against the hopper last year saved Nebraska farmers an estimated $5,751,000 in crops.

Lloyd Anderson, assistant entomologist, said the grasshopper maintains its "enemy No. 1" rating through the "generous" reluctance of farmers to apply adequate controls.

The European corn borer ranks second in the "worst insects" list.

ARKANSAS CHANGES

FAYETTEVILLE, ARK. — Several changes in the staff of the Agronomy Department at the University of Arkansas have been announced recently by Lippert S. Ellis, dean and director of the College of Agriculture and Home Economics. Charles E. Caviness has been appointed instructor and junior agronomist, to carry on research on soybean improvement and cultural management. He will continue the research work being carried on by Dr. Paul E. Smith, who has resigned effective about March 31 to accept a position with Ohio State University. At the same time Mr. Ellis reported two other resignations from the agronomy staff. Dr. E. O. McLean, who has been associate professor in soils, accepted a similar position at Ohio State University. Dr. R. D. Staten, assistant professor who has been working with pasture crops, resigned to go to Texas A&M College.

Grace Earnings Continue Upward, Stockholders Told

NEW YORK — J. Peter Grace, president of W. R. Grace & Co., reported to the annual meeting of stockholders recently a continuing increase in earnings during the first quarter of 1956.

Noting that the company issues semi-annual but not quarterly reports because of its diversified international activities, Mr. Grace declared:

"I can tell you that the improvements registered in earnings thus far during the year are above those we had anticipated in our profit program for 1956."

He recalled that net income rose to $18,780,000 in 1955 compared to $14,794,000 in 1954 and that net income per common share reached $4.21 in 1955, an increase of 20% over 1954.

The upward trend in earnings was maintained during the quarter in the four main groups of the company, including the chemical group despite a market weakness for agricultural chemicals resulting from the general decline in U.S. farm income, Mr. Grace said.

North Dakota Tonnage

BISMARCK, N.D.—Fertilizer sales in North Dakota during 1955 totaled 58,693 tons, compared with 48,642 tons in 1954, according to the State Laboratories Department. The 1955 total included 23,767 tons of mixed goods.

Texas Group Forms Plant Food Society

HOUSTON—Members of the fertilizer industry of Texas have organized the Texas Plant Food Educational Society. The organization will give special attention to pasture improvement and better forage.

Officers of the society are B. L. Henderson, Houston, president; N. D. Morgan of Shreveport, vice president, and directors include J. D. Dawson, Houston; Tom Wright, Nacogdoches; H. G. Wells, Dallas; R. L. Gilliland, Ft. Worth; H. J. Trammel, Texarkana; Floyd W. Prather, Comanche; A. L. Bennett, Amarillo, and Stanley C. Hackett, Shreveport.

Sherman W. Clark of Houston is secretary-treasurer.

Special Notice to **DEALERS**

Here's a message aimed at helping your business in 1956.
With U.S.D.A. approval a reality, the requirements of growers for corn borer granular pesticides will be big. Be ready!
Discuss the matter early with the processors who supply you.

the news you've waited for

Best Way to Control Corn Borer

...Granular DDT made with "GRANULAR ATTACLAY"

With the *new, approved* Granular DDT method —made even better by the original pioneer carrier, *Granular Attaclay*—you can be sure the corn borer won't menace your corn profits.

Advantages of Modern Granular Pesticide Method:

SAFETY—Graze stock or make silage after harvest with a new safety never possible with previous control methods.

ECONOMICAL—An application kills corn borers for a much longer period than ever possible before.

EFFECTIVE—Hits the stalk, filters to the whorl, kills the borers at point of greatest danger—where leaf joins stalk.

RECOMMENDED—Fully approved on the basis of large-scale work by U.S.D.A. and the State of Iowa on Iowa corn ground.

Corn Growers With Borers To Kill...
Dealers With Growers To Satisfy...
All specify... Granular Attaclay

GRANULAR ATTACLAY *is a product from*
MINERALS & CHEMICALS CORPORATION OF AMERICA
MENLO PARK, NEW JERSEY
"BUY EARLY"
makes good sense to processor, dealer, grower

Why you should demand Granular Pesticides made with "Granular Attaclay"

Granular Attaclay is the material (carrier) on which the pesticide manufacturer puts the poison. By weight, our carrier is about 95% of the finished product you buy, so *quality* and *dependability are important.*

Advantages of "Granular Attaclay"

- Excellent poison release properties
- Uniform particle size distribution
- Almost no drift . . . goes where it's aimed . . . no waste
- Doesn't clog applicator . . . trouble-free to apply
- Larger "pay load" when applying
- No caking in storage
- Produced by a major pioneer supplier of carriers for pest-killing chemicals . . . dusts, wettable powders, granular soil pesticides, herbicides, fungicides, etc.
- Result of years of painstaking research in our own laboratories and with major formulators.

Valuable Bulletin Available—
A fact-filled bulletin on corn borer control and granular pesticides is just off press. Fill in and mail coupon today for your free copy.

Minerals & Chemicals Corporation of America
1000 Essex Turnpike, Menlo Park, N. J.
Please send me free copy of your bulletin on corn borer control and granular pesticides
name_____
address_____
city_____ zone____ state____
(I'm a grower ☐; dealer ☐; processor ☐)

Plans Under Way for Oklahoma Fertilizer Dealers Conference

STILLWATER, OKLA.—Plans are well under way for the 1956 Oklahoma Fertilizer Dealers Conference to be held Nov. 28 at Oklahoma A&M College, Stillwater.

The dealers conference this year will be held in conjunction with the annual Oklahoma Soils and Crops Conference, which heretofore has been conducted in February but is now scheduled to be held Nov. 29.

The dealers conference is sponsored by the Oklahoma Plant Food Educational Society for fertilizer dealers for the purpose of discussing agronomic information and better ways to promote and merchandise agricultural chemicals by the dealer.

The program committee recently met at Oklahoma A&M College to discuss and plan the 1956 program. The following are serving on the committee:

Dr. M. D. Thorne, head, agronomy department, Oklahoma A&M College; Dr. Lester Reed, agronomy department, Oklahoma A&M College; Wesley Chaffin, extension agronomist, Oklahoma A&M College; Parks Yeats, fertilizer control official, State Board of Agriculture; Max Fry, Fry Seed and Fertilizer, Blackwell; John Freiburger, Bar Dew Hardware and Feed Co., Bartlesville; Jack Tyler, Dowell-Tyler Fertilizer Co., Stillwater; Harold Groce, Co-Op Elevator, Marshall; Dr. W. E. Irwin, Phillips Petroleum Co., Bartlesville; Dr. W. L. Garman, Grand River Chemical Co., Tulsa; George Summers, Jr., American Cyanamid Co., Stillwater; R. J. Kenyon, Phillips Petroleum Co., Bartlesville, and Perry Onstot, Davison Chemical Co., Joplin, Mo., program chairman.

AGRONOMIST TO RETIRE

ST. PAUL—Minnesota's oldest continuous crop rotation and fertilizer project fields will go under new management in July after 38 years under the same farmer. The "farmer," Roy O. Bridgford, agronomist and associate professor of the University of Minnesota's West Central School and Experiment Station at Morris since 1918, retires on June 30. The experimental fields, site of many beneficial discoveries about proper fertilizer and crop rotation in western Minnesota, were started in 1914.

Grower Tells How Fertilizer Trimmed Production Costs

COLUMBIA, MO.—Henry Coope Shannon County, Missouri farmer, a report at his county's soils a crops conference, told how soil trea ments he used last year on a fie of corn resulted in a much low production cost per bushel.

Adequate plant food used accordi to soil needs resulted in a yield 75 bu. an acre. The yield on an ar in the same field where only a star er, or token amount, of plant foo was used made 24 bu. an acre.

Costs involved in producing the tw different yields were the same excep for fertilizer. A total of $18.94 wa spent per acre where the yield wa 24 bu. including $1.70 for seed, $3.7 for fertilizer, $3 for plowing, $1.5 for planting, $3 for cultivating, an $6 for harvesting. The cost produc tion was 79¢ bu.

The investment in adequate plant food and the spreading charge on the area making 75 bu. amounted to $22.13. This, added to the other fixed costs, amounted to $41.07 an acre. The increased yield reduced the cost to slightly less than 55¢ bu.

Mr. Cooper believed the use o soil tests paid handsome dividends i determining the needs of plant foo to eliminate plant nutrients as a lim iting factor of production. He point ed out that if it was assumed corn was worth $1.25 bu., the well-fer tilized soil returned a profit of $52.6 an acre while the unfertilized area made only $11.06.

Part of each acre in the field wa harvested for silage. An acre of th high yielding corn made 5.2 loads o silage while an acre of the unfer tilized produced 1.4 loads.

Dismal Moisture Situation Seen for Illinois Farmers

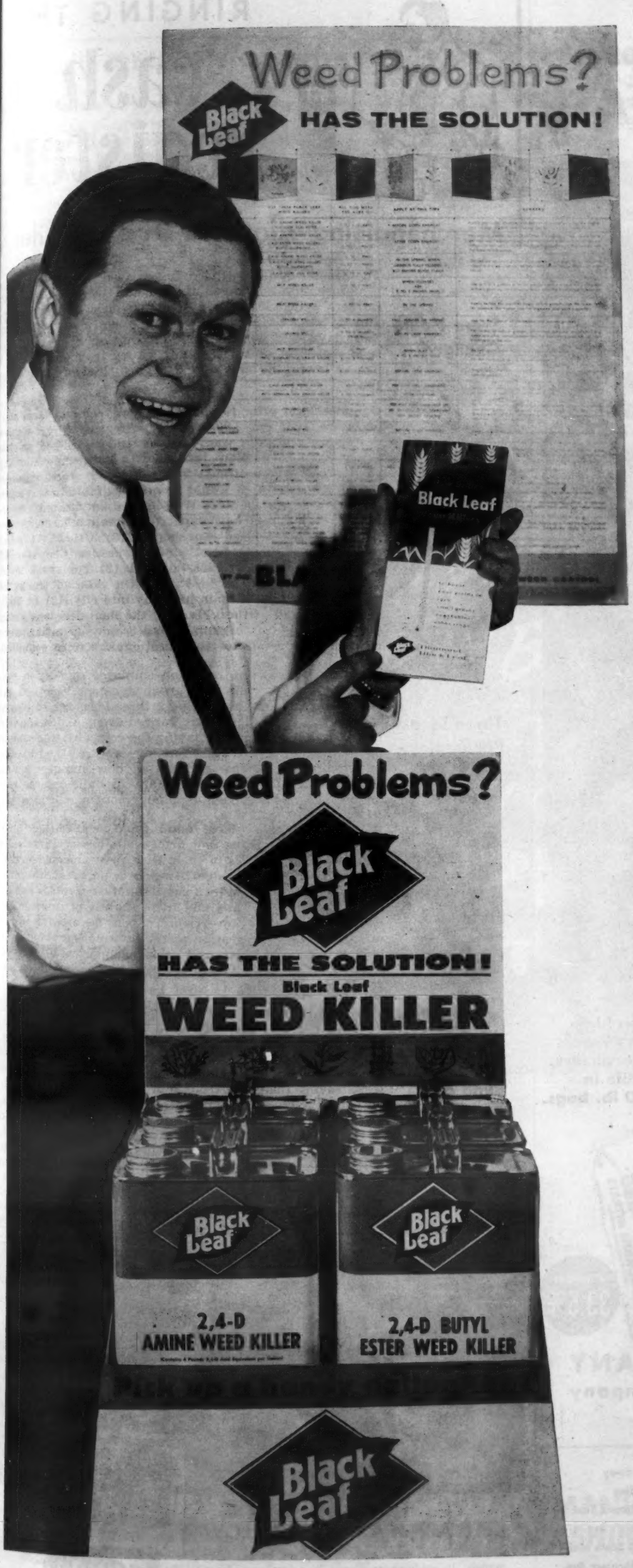
URBANA, ILL.—Farmers through out Illinois have been warned by University of Illinois authorities here to "be prepared for crop failures" this year, because of the disturbing soil moisture situation over a large part of the state.

Spot surveys made by agronomists from the College of Agriculture have indicated that the lower than normal winter precipitation has caused a decrease in the amount of moisture stored in the upper five feet of many of the state's soils.

Enough moisture is expected to at least give crops a start, says a May 1 statement from the agronomy de partment. A critical period is, how ever, expected in midsummer when rainfall normally slacks off and crops begin to draw heavily on water stored in the subsoil.

Above normal rainfall distributed throughout the summer could overcome the present water shortage and bring good crops, but, says the statement, "counting on that to hap pen would take more optimism than most of us have." Extra runoff and evaporation losses, it is also pointed out, make an inch of summer rainfall less effective in promoting crop growth than an inch of water stored in the subsoil.

Through cooperation of the U.S. Weather Bureau and the Illinois state climatologist, the college investigators established that between Oct. 10, 1955, and April 1, 1956, pre cipitation in Illinois was from 25 to 50% of normal over about half the state while the remainder received 50 to 100% of normal.



BLACK LEAF SELLING TOOLS

BUILD YOUR WEED KILLER VOLUME!

He's ready for the weed killer buying season!

Look at his three *new* BLACK LEAF merchandise-movers. Each one is designed to remind his customers he sells America's best-known brand of farm chemicals.

These free selling tools dig out extra sales for you, too . . .

Weed Killer Selector Wall Chart. Everything you — and your customers — need to know about weed killers and how to use them. 18 x 24 inches.

Handy Pocket Folder. All the details on BLACK LEAF Weed Killers. Chart (described above) is reproduced in smaller size. Excellent customer giveaway.

Self-Selling Counter Display Carton. Holds six one-gallon cans. Puts 'em in front of the people who need 'em. Eye-catching colors — green, red and black — match the chart.

What about advertising support? This spring's weed killer campaign is the biggest in BLACK LEAF history! The four-color, lead-off ad appears on *Successful Farming's back cover* for May.

More big weed killer ads will appear in eight other farm publications in May.

Ask your DIAMOND BLACK LEAF salesmen for these charts, folders, cartons. Order now! Don't miss the weed killer buying push. For more information, phone or write the DIAMOND BLACK LEAF sales office nearest you.

Eastern Sales Office
P. O. Box 1476
Lancaster, Pennsylvania

Western Sales Office
P. O. Box 817
San Jose, California

Southern Sales Office
P. O. Box 1227
Montgomery, Alabama

Midwest Sales Office
3525 Vandalia Avenue
Des Moines, Iowa

Black Leaf
Diamond Black Leaf COMPANY Cleveland 14, Ohio

ADVERTISING
to help you sell more Phillips 66
AMMONIUM NITRATE

Ruralist
Kansas Farmer
THE FARMER
Farmer-Stockman
Future Farmer
LessWork! LessWorry!
Because You Get More Profit from Fewer Acres
PHILLIPS 66
AMMONIUM NITRATE
THE LOW COST FERTILIZER
Lower production costs per unit always demand good farming plus proper fertilizing. Phillips 66 Ammonium Nitrate is the right nitrogen fertilizer to use with quality mixed fertilizer. Use this high nitrogen fertilizer. Phillips 66 Ammonium Nitrate, and you'll realize lower unit production costs . . . more profit per acre! You make more money with less work, less worry
Stretch moisture, beat drought! Adequate fertilizing results in higher yields from like amounts of soil water. The nitrogen in Phillips 66 Ammonium Nitrate builds stronger roots, which seek moisture in the subsoil, thus helping to keep your soil from blowing or washing. More efficient use of moisture means you get better crops during periods of subnormal rainfall.
Other profit advantages! When you fertilize with Phillips 66 Ammonium Nitrate, you get more protein in your grain and forage for higher feed values. You have more uniform harvest dates; you lessen your farming risks. Your unused fertilizer carries over to improve your next crop, and you make the most of crop residues for maintaining soil productivity. Now is the time to order your supply of Phillips 66 Ammonium Nitrate and mixed fertilizers.
NOW AVAILABLE IN POLYETHYLENE-LINED 50 AND 100 LB. BAGS
See Your Fertilizer Dealer Today!
PHILLIPS CHEMICAL COMPANY
A Subsidiary of Phillips Petroleum Company, Bartlesville, Oklahoma
It's Performance That Counts!
NITROGEN 33.5%

Here's the kind of advertising Phillips is using to help you sell more Ammonium Nitrate and other fertilizers in 1956. A forceful series of ads featuring Phillips *66* Ammonium Nitrate appears in 21 leading farm magazines. They tell farmers how this high quality, high nitrogen fertilizer gives them lower unit production costs—more profits per acre—better results with less work, less worry.

Most important, these ads tell farmers that *now* is the time to contact *YOU* for their supply of Phillips *66* Ammonium Nitrate!

A companion high nitrogen fertilizer for mixed fertilizers. Now available in 80 and 100 lb. bags.

It's Performance That Counts!

PHILLIPS CHEMICAL COMPANY
A Subsidiary of Phillips Petroleum Company
BARTLESVILLE, OKLAHOMA

OFFICES IN:

AMARILLO, TEX.—First Nat'l Bank Bldg.
ATLANTA, GA.—1428 West Peachtree Street
BARTLESVILLE, OKLA.—Adams Bldg.
CHICAGO, ILL.—7 South Dearborn St.
DENVER, COLO.—1375 Kearney Ave.
DES MOINES, IOWA—606 Hubbell Bldg.
HOUSTON, TEX.—1020 E. Holcombe Blvd.
INDIANAPOLIS, IND.—1112 N. Pennsylvania St.
KANSAS CITY, MO.—500 West 39th St.
MINNEAPOLIS, MINN.—212 Sixth St. South
NEW YORK, N. Y.—80 Broadway
OMAHA, NEB.—WOW Building
PASADENA, CALIF.—604 Citizens Bank Bldg.
RALEIGH, N. C.—804 St. Mary's Ave.
SALT LAKE CITY, UTAH—68 South Main
SPOKANE, WASH.—521 E. Sprague Ave.
ST. LOUIS, MO.—4251 Lindell Blvd.
TAMPA, FLA.—1214 South Dale Mabry
TULSA, OKLA.—1708 Utica Square
WICHITA, KAN.—501 KFH Building

RINGING THE cash register
Merchandising Hints for The Retailer

Store Hours Changed

The annual spring rush having arrived, many farm supply stores have changed their hours to adjust them to farmers' schedules. One store announced that it has begun 7 a.m. to 5 p.m. opening hours daily, including Saturdays, and will continue on that schedule until the rush season is over. The store closes from noon until 1 p.m., allowing all employees to go to lunch at the same time.

Relies on Direct Mail

One merchant prior to opening a new feed and farm supply store, sent out 2,300 double postcards to prospective customers (postage was paid by the addressee on the portion returned) asking the following questions: What kind of store arrangement would be most suitable to serve you best? (1) Well lighted and heated "supermarket" type. (2) Small office with unheated warehouse. (3) Other. At what floor level should the feed be stored? (1) Ground level. (2) Pick-up level. (3) Ton truck level. What location will be best? (1) On railroad tracks at edge of city. (2) On main highway into city. (3) In business district. (4) Other. Many of the final decisions about how the store was organized and is now operating were formed after results of the questionnaire were compiled.

Three Ideas Per Employee

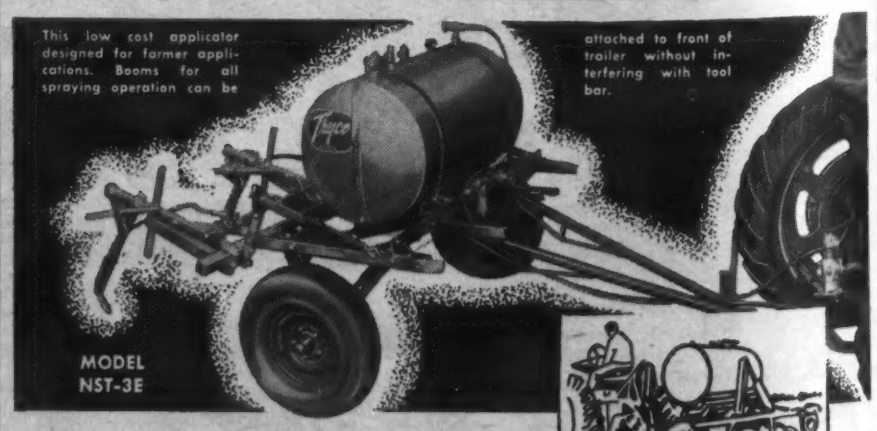
One firm successfully using an employee suggestion system has what it calls the "group dynamics" method. At one recent session an average of three ideas per employee was submitted. Suggestions ranged from a demand for more local advertising to having the company trade name painted on delivery trucks. Employees were asked to submit their suggestions—no matter how inconsequential they seemed—for evaluation. Many of the employee recommendations have been adopted, company officers state.

Ads Which Farmers Like

A number of dealers have found it beneficial to their businesses to run pictures and brief write-ups of their sales and service employees in their local newspaper advertisements. This type of advertising is a personal, intimate way of promoting a store's services. Most farmers are interested in the pictures and little tid-bits of information contained in such advertising. Such advertising often makes a good conversation piece. Information about hobbies, interests, children and achievements make interesting reading. Many farmers will mention seeing these ads to store personnel.

Build a Dock

Feed and farm supply stores in suburban and other areas where there are numerous 25 lb. and 50 lb. purchases can provide added convenience for shoppers by building a concrete dock alongside the store. Shoppers will welcome the convenience of backing their automobiles up to the dock, saving them the trouble of carrying these 25-50 lb. purchases any great distance. But what is most important, owners will invariably find that a substantial increase in larger unit sales will result because of the convenient loading dock. A customer who is reluctant to make a 100 lb. purchase, even if a carry-out clerk is available, will often increase the size of the order because of the ease and convenience in loading it from a dock right into the trunk of his automobile.


This low cost applicator designed for farmer applications. Booms for all spraying operation can be attached to front of trailer without interfering with tool bar.
Tryco
MODEL NST-3E

KEEP APPLICATOR COSTS LOW

Write for literature and details on other Tryco models. In addition to above low cost unit, Tryco manufactures heavy duty Custom Applicators, and Tractor Mounted units which combine solution application with disc, plow or cultivators. Also Tryco has available a complete line of nitrogen solution and liquid fertilizer tanks and transfer equipment.

Tryco
MANUFACTURING CO.
DECATUR, ILLINOIS

OVER THE COUNTER

(Continued from page 9)

lieve maximum results is in the wspaper. Through the newspaper, advertiser can reach the largest mber of prospects at lowest cost," nted out Prof. Senger in his adss to the 40 operators.

To be effective, advertising must first of all, continuous," he warnProf. Senger voiced the opinion t many businessmen forget that ertising makes an impression not y as individual ads but has a cuulative effect. He contended also t advertising must be properly itten.

ggestions for ore Layout

t is generally recognized that merndising methods employed by permarkets are well advanced comred with those of many other instries who sell through retail outs. The reasons for the strides made supermarkets are not our concern e but their successful methods uld cause merchandisers in other ds to investigate carefully the ofitable techniques which can be opted.

Naturally, it is not possible to t" merchandising methods exactly used by good supermarkets and ply them to the farm supply store cause of the differences in products d the market. Nevertheless, many hniques found successful in superrkets can be applied with equal cess in farm supply stores.

Recently several merchandising and sign experts from Safeway Stores, ., one of the nation's largest relers, were asked for their ideas in signing a farm supply store.

Here is the hypothetical case of the re set up by the Safeway designers. e building measures 50 by 100 ft., th one fourth of the area in front ng used as the sales room and nager's office. The warehouse is of rse designed for fertilizer, feed d other bulk commodities.

Merchandise groups handled by he store are fertilizers and farm hemicals of all types, seeds, feeds, et foods and supplies, health prodcts, garden supplies and tools and ght farm hardware. The latter roup includes such items as waterrs, feeders and applicators.

Departments are set up so that (1) lated products are grouped together make them easy for the customer find, and (2) customers can move m one to the next in logical sence.

Emphasis was placed by the degners on displaying items promiently for "impulse" buying, stating hat for many grocery products lly one third of the purchases re on "impulse," that is, they were ot planned beforehand.

All merchandise is displayed off the or. Merchandise is kept cleaner and less subject to "mop" damage and res are easier to keep clean if rchandise is displayed off the floor.

Two methods of boosting sales of w movers or special items were ggested. One is through displays the end of an island fixture. A cond sales builder involves promon pieces, usually visible above the el of the center fixtures.

Along one wall is a long, low platrm for display of larger items such power mowers and tools. Along the posite wall are shelves for fertiliz- and farm chemicals, medicaments, supplies, etc.

The sales and service counter is the rear, adjacent to the manager's office. Two long island fixtures and three aisles take up the center of the display room. Two end displays for special promotions are placed directly in front of the doors.

Painted concrete was suggested as the cheapest and most durable floor. In sales rooms where no hand trucks are used, asphalt tile flooring was suggested as being the most attractive.

Fluorescent, rather than incandescent lamps, were recommended since they use one third to one half as much power as incandescent lamps. Also, they last a great deal longer than incandescent lamps.

Researcher Warns Farmers Against Unwise Cost Cuts

ST. PAUL—Farmers who are short of cash during the current price-cost squeeze in agriculture need to be on their guard that they do not cut expenses in ways that reduce income more than costs, according to William L. Cavert, Director of Research for the St. Paul Farm Credit Administration.

When the farmers are pressed for cash, he observes, there is a strong temptation to cut back on all expenditures—by using less fertilizer, less protein feeds, less weed sprays and similar materials; by using less hired labor in critical seasons of the year. Such expense-paring should be figured carefully, to make sure that they do not reduce income by still more than the amounts saved, Dr. Cavert warns.

It may frequently be true that a dollar of outlay saved on such items may reduce farm income by two to five dollars because of the smaller output and sales.

MARKETING AGREEMENT

PORTLAND, ORE.—The first attempt to create an onion marketing agreement in the U.S. has been started by growers on both sides of the Snake River in Oregon and Idaho. Growers have asked for a referendum to give control over the quality of onions shipped from their valley, said W. L. Close, federal-state shipping point supervisor. Growers in Malheur and the adjacent Idaho county ship from 75,000 to 90,000 tons of onions each year.

PENCO®

GRANULAR 5% DDT
Field-tested . . . Uniform quality

DDT EMULSION 34
3 pounds DDT per gallon
emulsifiable concentrate

DDT EMULSION 25
2 pounds DDT per gallon
emulsifiable concentrate

Last year the European corn borer cost growers a whopping $182,581,000 or 5% of the total national crop of grain corn, according to the USDA. The infestation is expected to be greater this year. So, dealers, be ready with ample stocks of PENCO brand DDT products which by experience have given a high control of the corn borer. PENCO brand agricultural products are known for their high potency, performance and constant quality . . . and they have nation-wide consumer acceptance. Be ready . . . stock up now. Send today for free bulletin.

Pennsylvania Salt Mfg. Co. of Washington
309 Graham Bldg. Dept. L
Aurora, Illinois

Please rush free bulletin N-17 "How To Control Corn Borer With PENCO DDT Products"

Name.....

Address.....

City..... State.....

PENNSYLVANIA SALT MANUFACTURING COMPANY OF WASHINGTON

309 GRAHAM BUILDING AURORA, ILLINOIS

Producing chemicals for farm, home and industry for over 105 years

Pennsalt Chemicals

FARM SERVICE DATA
Extension Station Reports

Missouri fertilizer use in past years points out that farmers in the state are becoming more and more aware of the value of commercial plant foods, says O. T. Coleman, University of Missouri extension soils specialist. Despite lower farm prices, there should be no great letup in fertilizer use during 1956, he says.

Wise use of fertilizer can cut costs and increase income at the same time. And, fertilizer continues to be a good buy—costs have risen only 13% since 1935 whereas the cost of all the production items a farmer buys has increased 125%.

Today's fertilizer has more crop-building power than ever before, Mr. Coleman says. In the past five years, the industry has increased its concentration of plant food per ton of fertilizer by almost 23%.

In Missouri, the increase for these same five years has been over 28½%. Amounts of plant food in 100 lb. of fertilizer jumped from 30 lb. plant food in the fertilizer used during 1950 to 33.3% in that used in 1955.

There was a 60% increase in tonnage of fertilizer used—482,000 to 771,500 tons. But, at the same time, the increase in pounds of plant food has been from 136,500 to 264,000 tons or slightly more than 90%.

★

To get top yields from forage and grain sorghums the seed needs to be treated with a fungicide before planting, according to Claude L. King, extension plant disease specialist at Kansas State College, Manhattan. Treatment against kernel smut costs only a few cents per acre and insures against the malady, he said.

Mr. King quoted experiments at Kansas State College by Earl Han ing which showed that samples ge minating high in the seed laborato do not always produce good stands outdoor soil unless treated. Certa unseen molds and bacteria on health appearing seed rob the kernels some of the food the sprouts nee to grow into young plants that ca live entirely from the soil.

★

Information on chemical weed co trol recommendations for treatme of weeds in field crops has bee brought up to date for 1956 in a ne circular being distributed in Nort Dakota by county extension agent

Authors of the 1956 circular ar R. B. Widdifield, agronomist, and D E. A. Helgeson, experiment statio botanist. The circular is No. A-2 Chemical Weed Control.

Treatment of weeds in field crop covers wheat, durum, barley and oat winter rye, flax, corn, soybeans, pa tures and meadows, forage legume and sugar beets. Recommendation are given in detail for weed control i all these crops.

★

A Wisconsin entomologist report that more than one million acres o Midwestern corn land will be treate this year with insecticide-fertilize mixtures to help control rootworms wireworms and other damaging pests

Dr. J. W. Apple of the University of Wisconsin said that American farmers used more than 200,000 tons of insecticide-fertilizers last year, or 34% more than in 1954.

In some 1955 Wisconsin tests, cor yields were increased as much a 39 bu. per acre and lodging reduce about 90%, when insecticides wer added to starter fertilizer to contro rootworm infestations, Dr. Apple said

He reports that varying amount of aldrin, heptachlor and chlordan were used in fertilizers such a 5-20-20 and 4-16-16, to provide con centrations of one-fourth to on pound per acre in the various tests

Some earlier tests in Iowa indi cated that insecticides in starter fer tilizers, containing aldrin and chlor dane, had reduced rootworms by 87% and increased corn yields by 28%.

★

Indiana corn growers interested i lowering costs and boosting yield can profit from experiences and prac tices of Indiana's champion growers

That's the advice from M. O Pence, Purdue University extensio agronomist, who has outlined prac tices used by the best Indiana cor growers and backed by research wor of the Purdue agronomy department Full response, however, cannot b achieved from these practices on soil that are in poor tilth, too wet or too drouthy, or where poor soil manage ment practices are followed.

Last year the 10 high yields wer grown in nine different counties, on on river bottom land, and the other on upland. Other than having lan well adapted to corn, Mr. Pence foun that the farmers agreed on seve important factors. Here's what th farmers did to obtain their high yield

The largest yield, 210 bu. per acre was grown on river bottom soil— Genesee silt loam—one year remove from clover sod. Of the remainin nine farmers, five used legume so and four followed corn after cor with supplemental nitrogen fertilize

All ten farmers used row or starter fertilizer varying from 100 to 300 lb. per acre. Six used a 1-4- fertilizer ratio such as 5-20-20, two a 1-4-0 ratio and two a 1-1-1 ratio. All ten men plowed down or broadcast from 400 to 1,000 lb. of fertilizer per acre, and two side-dressed

KILL THE CORN BORER— NOT THE CORN!

use **Riverdale** safe, solvent-free **DDT GRANULES**

The whorl of the corn, where DDT Granules are concentrated, is extremely sensitive to solvent burn. This year be safe, use Riverdale's solvent-free DDT Granules and get better results all around.

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Kill those corn borers where they feed —get them in the early stages, but get them without danger of burn to the plant. Use Riverdale's Solvent-Free 5% DDT Granules. Can be applied with either ground equipment or airplane. No mixing, no water to haul, just dump them into the hopper.

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th nitrogen. The largest total nount used per acre was 1,300 lb.

The champions adjusted their rate planting to the fertility level of land, ranging from 13,000 to 25,- plants per acre. Nine drilled one hill-dropped the corn in rows ying from 37 to 40 in. apart.

All the growers used hybrid seed. st fields were spring plowed and ced from one to three times. No d and fast rules may be given in ard to seed bed preparation, since varies with the soil type, the sea- and the tools used, Mr. Pence re- ted.

All ten farmers used the rotary hoe, e once and five twice. Eight of the men row cultivated twice, one ce and one three times. All corn s planted in May, the earliest May and the latest May 25.

★

The atomic age is helping research ientists find new clues about how uch of the nutrients in a growing ant comes from fertilizer and how uch is supplied by the soil, a Min- sota soils specialist reports.

Dr. A. C. Caldwell, of the Univer- y of Minnesota, says that scien- ts can now "tag" phosphorus by aking it radioactive. When this gged phosphorus is mixed with fer- lizer, it can be traced from the soil the crop and scientists can then lculate how much of the phosphor- s in the plant came from the fertil- er.

Dr. Caldwell reports that 35% of the phosphorus in alfalfa plants ame from fertilizer in Minnesota ests when established meadows were top-dressed with the equiva- ent of 266 lb. of concentrated su- perphosphate per acre. This appli- cation boosted yields by 39%.

The uptake of phosphorus in corn nd most other crops was increased hen nitrogen was added, Dr. Cald- ell says. Earlier maturing inbred nes of hybrid corn got a larger pro- ortion of its phosphorus from fer- ilizer than did most of the medium r late maturing lines, he reports.

Dr. Caldwell says that other tests ave measured the residual or "car- yover" amounts of phosphorus re- aining in the soil for plant use after rops have been harvested. These ests showed that carryover benefit was highest on plots receiving super- hosphate. Next highest came from uperphosphate and manure and third ighest from manure. Very little esidual effect was recorded from ock phosphate or a combination of ock phosphate and manure.

★

Most spring pastures require fer- ilizer in order to furnish good graz- ng, according to W. R. Thompson, Mississippi extension pasture special- st. It is not normal for clovers to "just play out," he said. Clovers stop growing when the plant food gives out. To determine the right amount of fertilizer to use, soil testing is recommended. However, where time is not available for a soils test, Mr. Thompson says to use 400 lb. of 0-14- 14 or 300 lb. of 0-20-20. This will help make good grazing on most soils.

★

Irrigated corn averaged 60 bu. per acre in Nebraska's damaging 1955 drouth, whereas non-irrigated corn yielded only nine bushels per acre, a Nebraska agronomist reports. Dr. Harold F. Rhoades of the University of Nebraska, points out that these results clearly demonstrate the im- portance of an adequate supply of moisture for corn production.

Dr. Rhoades says, however, that many soils specialists believe that average yields of irrigated corn should be higher than 60 bu. per acre.

The failure to get more than 60 bushels, he said, was due in large measure to the failure of many farmers to follow good management practices. Such practices, he says, include proper fertilization and a stalk population big enough to use all the available moisture and nutrients.

Dr. Rhoades says that on soils well supplied with phosphate and potash, the addition of 160 lb. of nitrogen per acre increased corn yields nearly 100 bu. per acre in some Nebraska tests.

★

Since it takes from one to two pounds of nitrogen to produce a bushel of corn, Minnesota's six million acres of corn, which produce nearly 300 million bushels, remove at least a quarter of a million tons of nitrogen each year, according to John M. MacGregor, associate professor, department of soils, University of Minnesota.

It is commonly assumed that Minnesota farmers are replacing this nitrogen by growing legumes and by applying manures and commercial fertilizer, but this is not so, Dr. MacGregor says. He quotes the following figures:

"If our 2 million acres of alfalfa or clovers return 50 lb. of nitrogen to the soil of each acre, this would total 50,000 tons.

"Possibly 50% of the nitrogen produced by our farm animals and poultry is eventually returned to the soil. This may supply a second 50,000 tons.

"The 371,000 tons of commercial fertilizer sold in the year ending June 30, 1955 contained only 33,000 tons of nitrogen.

"This means that if the 133,000 ton total of present efforts to restore nitrogen to the soil were directed to our corn alone, the return would be only half of that removed by one corn crop. Consequently, a large increase in the use of fertilizer nitrogen is necessary if soil nitrogen is to be kept at levels essential for optimum plant growth."

SURVEY TO RESUME

FARGO—The North Dakota cooperative economic insect survey service will be resumed June 4. Vance V. Goodfellow, assistant state entomologist, is in charge of the field survey.

SALESMEN... to help boost YOUR profits!

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will return $3 to $4 on the average corn crop
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Each Lion advertisement promotes the economic benefits of properly using fertilizers, including Lion Ammonium Nitrate, to help increase the farmer's profits. Each advertisement sells *hard* on the importance of soil tests in the intelligent use of all commercial fertilizers. Lion, a leader in nitrogen production, leads the way to good fertilization practices . . . to better profits for you!

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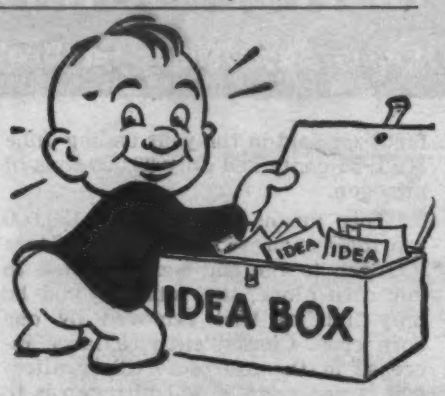

What's New...

In Products, Services, Literature

You will find it simple to obtain additional information about the new products, new services and new literature described in this department. Here's all you have to do: (1) Clip out the entire coupon and return address card in the lower outside corner of this page. (2) Circle the number of the item on which you desire more information. Fill in your name, your company's name and your address. (3) Fold the clip-out over double, with the return address portion on the outside. (4) Fasten the two edges together with a staple, cellophane tape or glue, whichever is handiest. (5) Drop in any mail box. That's all you do. We'll pay the postage. You can, of course, use your own envelope or paste the coupon on the back of a government postcard if you prefer.

No. 6415—Booklet on Pyrethrum

"Facts for 1956 About African Pyrethrum" is the title of a booklet prepared by African Pyrethrum Development, Inc. The booklet's introduction states that the product's use as an insecticide gives qualities of quick knock-down, economy in lower concentrations with synergists, rapid dispersal and high penetration. Also included in the booklet are sections on Pyrethrum's background and how it is grown in Africa and processed from the Pyrethrum bloom, a flat white flower with a yellow center. Secure the booklet by checking No. 6415 on the coupon and dropping it in the mail to Croplife.

No. 6416—Soil Moisture

A slide film with an accompanying 25-min. recorded commentary on how soil moisture measurement works and the benefits it can provide has been prepared by the Rayturn Corp. The film deals with soil moisture-plant growth relationships and with the control of irrigation through soil moisture measurement. The slide film is available at no charge for individual meetings and at cost for permanent use. Check No. 6416 on the coupon and mail it to secure more complete details.

No. 6417—Educational Booklet

The Manufacturing Chemists Assn., Inc., has prepared an educational booklet in behalf of the chemical industry, entitled "Frontiersman of the Future." "Young people who are considering the field of chemistry today will have a hand in the shaping of tomorrow," according to the booklet. The contributions made by chemicals such as in fertilizers, soil conditioners, weed killers, insecticides and plant disease treatments, are described. "The demand for chemistry graduates has exceeded the supply for many years," according to the booklet. To secure the booklet check No. 6417 on the coupon and mail it to Croplife.

No. 6418—Sprayer

New literature has been prepared by the Spra-White Chemical Co. on its sprayer line, called by the trade name, Spray-Master SM-3KW. Company spokesmen state that the sprayer provides ample pressure and capacity to handle the spraying of trees, orchards, vineyards, parks, nurseries, roadsides, heavy brush, etc., and can be used with fungicides, insecticides, herbicides and other liquids. The unit consists of a piston-type pump which delivers 12 gal. per minute at 400 lb. pressure, it is claimed. Other characteristics: The unit has a single-cylinder 4-cycle air-cooled 3.6 h.p. engine; pressure controller, it is portable, has mist-to-stream adjustment and a pressure variation from 30 to 800 lb. per square inch. Secure additional information and literature by checking No. 6418 on the coupon and mailing it to Croplife.

No. 5452—Insect Control

New equipment for spreading insecticides through a barn or building —called barn fogging—is announced by the Electric Sprayit division, Thomas Industries, Inc. Barn fogging equipment consists of a large sprayer which can be attached to a compressor. The company's unit, called by the trade name, Fogmaster, consists of a half-gallon Pyrtox unbreakable bottle with a four-spray nozzle of non-corrosive brass. The nozzle is capable of a 40-ft. carry in all directions and can be operated with 30 to 40 lb. of pressure, it is claimed. This model will fit all sizes and types of compressors without adaptors and will spray both water and oil base insecticides. Company officials state that the unit will keep a 70x35-ft. barn insect-free with only 10 min. spraying a day. Secure more complete details by checking No. 5452 on the coupon and mailing it to this publication.

Send me information on the items marked:

☐ No. 5416—Weigh System	☐ No. 6411—Dust Mask
☐ No. 5443—Grain Fumigant	☐ No. 6412—Soil Fumigant
☐ No. 5450—Bag Sewer	☐ No. 6413—Coatings
☐ No. 5451—Bag Closing Heads	☐ No. 6414—Applicator
☐ No. 5452—Insect Control	☐ No. 6415—Pyrethrum Booklet
☐ No. 5454—Spray	☐ No. 6416—Soil Moisture
☐ No. 6409—Converters	☐ No. 6417—Booklet
☐ No. 6410—Insecticide Injector	☐ No. 6418—Sprayer

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Also Available

The following items have appeared in the What's New section of recent issues of Croplife. They are reprinted to help keep retail dealers on the regional circulation plan informed of new industry products, literature and services.

No. 5454—Spray

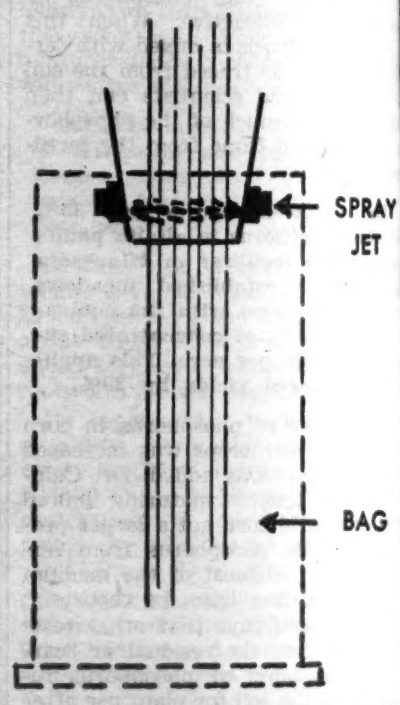
Two forms of Lindane spray for grain elevators, boxcars, granaries and flour mills are described in a new leaflet prepared by the E. H. Leitte Co. One is a 1% Lindane spray solution (ready-to-use) and the other is a 20% concentrate bin and mill spray (water miscible). Both forms are said to be effective in the control of granary weevil, rice weevil, saw-toothed grain beetle, confused flour beetle, Mediterranean flour moth, cadelle, roaches and other insect pests. Residual effectiveness is said to be from four weeks to five months. To secure the leaflet check No. 5454 on the coupon and drop it in the mail to this publication.

No. 6413—Protective Coatings

The Shutt Process Equipment Co. announces its new system of statistical evaluation and selection of protective coatings, called the All-Coat engineered coating system. It is claimed to permit selection of optimum type of topcoat, primer and surface preparation specifications which under given environments and contemplated maintenance procedures, results in the lowest maintenance cost for an indefinite time. The basis of the system is a statistical study for the past 10 years on various corrosive environments and includes consideration of chlorinated rubber, vinyl, fish oil, alkyd-phenolics, neoprenes, bitumens, phenolics, furanes and the more recent epoxy and isocyanates. The resultant selection is said to be based on a summation of all factors which affect the total cost of a system including chemical resistance, surface preparation, thickness, labor, aging properties, coverage, cost and adhesion. Secure more complete details by checking No. 6413 on the coupon and mailing it to this publication.

No. 6410—Insecticide Injector

An injector for adding liquid insecticides to fertilizer, called by the trade name, Jetrol, is being marketed by the Bemis Bro. Bag Co. In new literature published by the company it is stated that the injector adds liquids to products prior to bagging, automatically sprays the product falling into the bag, measures the exact quantity of insecticide and diffuses it thoroughly and does not affect the fertilizer weighing process. As the tumbling product passes by the injector nozzles, automatically the four nozzles of the injector spray liquid insecticide into the fertilizer. Spraying time is controlled by adjustment of an air pressure regulator. Secure detailed literature about the injector by checking No. 6410 on the coupon and dropping it in the mail to Croplife.



No. 5416—Weigh Batching System

An electronic weigh batching system that will work in conjunction with IBM's punch card system has been developed by the Heltzel Steel Form and Iron Co. Called the Helcomatic Batchmaster, the unit is said to have application in the feed, grain, fertilizer, chemical and other fields. The new unit is housed in a console the size of a standard filing cabinet. Through the use of IBM punch cards, the unit automatically selects and weighs out the precise amount of any number of materials, the company states. The combinations of material weights and selections are varied and can be changed instantaneously. Where repetitive batches are required, the unit provides for automatic recycling. A moisture compensating feature is provided. A controlled closed circuit practically

(Continued on page 30)

You can SELL farmers like these

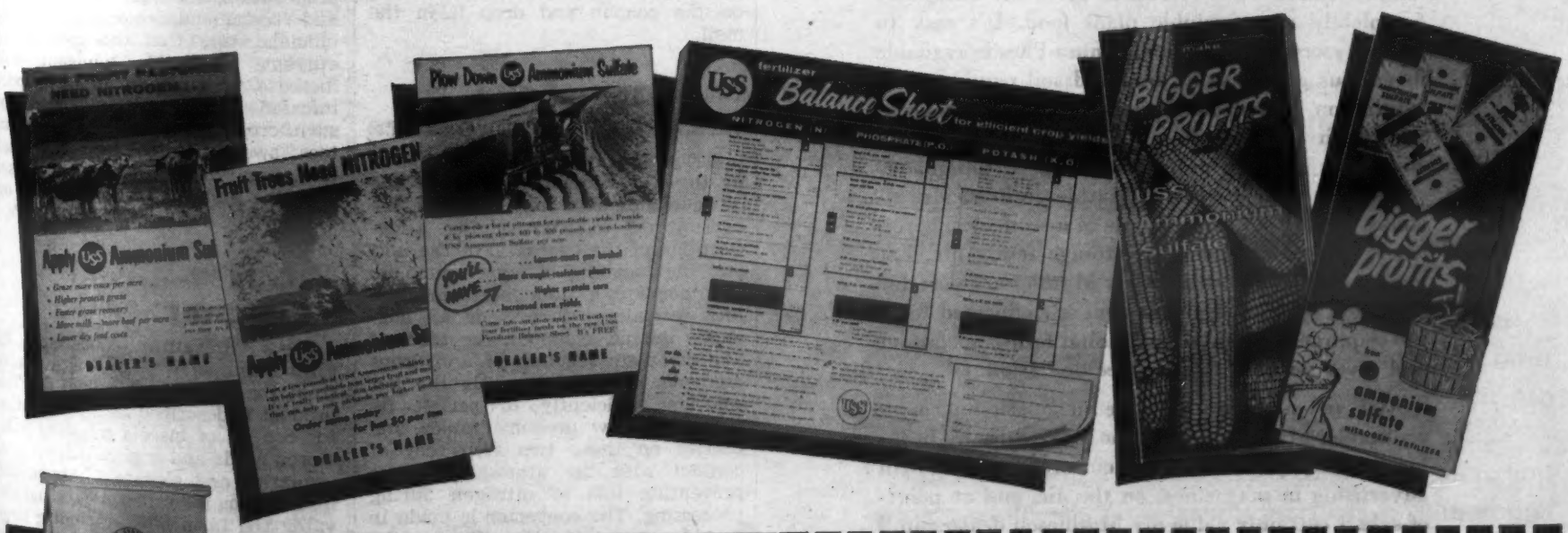
Montana dairyman Gilbert Gander, after applying 150 to 300 pounds of USS Ammonium Sulfate per acre, twice a year, says, "We figure the amount of extra hay produced by high-nitrogen fertilizer is worth three times the cost of the fertilizer."

Illinois farmer Earl Hanson, after applying 200 pounds of USS Ammonium Sulfate per acre, says, "The corn fields treated with fertilizer plus USS Ammonium Sulfate averaged 15 bushels an acre *better* than the fields treated with fertilizer alone."

Alabama farmer Comer Martin, after applying 200 pounds of USS Ammonium Sulfate per acre, says, "I boosted my corn yield 45 bushels an acre with USS Ammonium Sulfate. It helps crops withstand dry weather better than any type of nitrogen fertilizer I've ever used."

Pennsylvania farmer Bob McJunkin, after applying 200 pounds of USS Ammonium Sulfate per acre, says, "Our wheat yield was 46 bushels an acre, 16 bushels over the average in this area! We figure every dollar spent on sulfate netted us $10 in *extra* wheat yields."

...with PROMOTION like this!



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am interested in promoting greater sales of USS Ammonium Sulfate to farmers in my area. Please send me a free supply of balance sheets, pamphlets and other helpful material.

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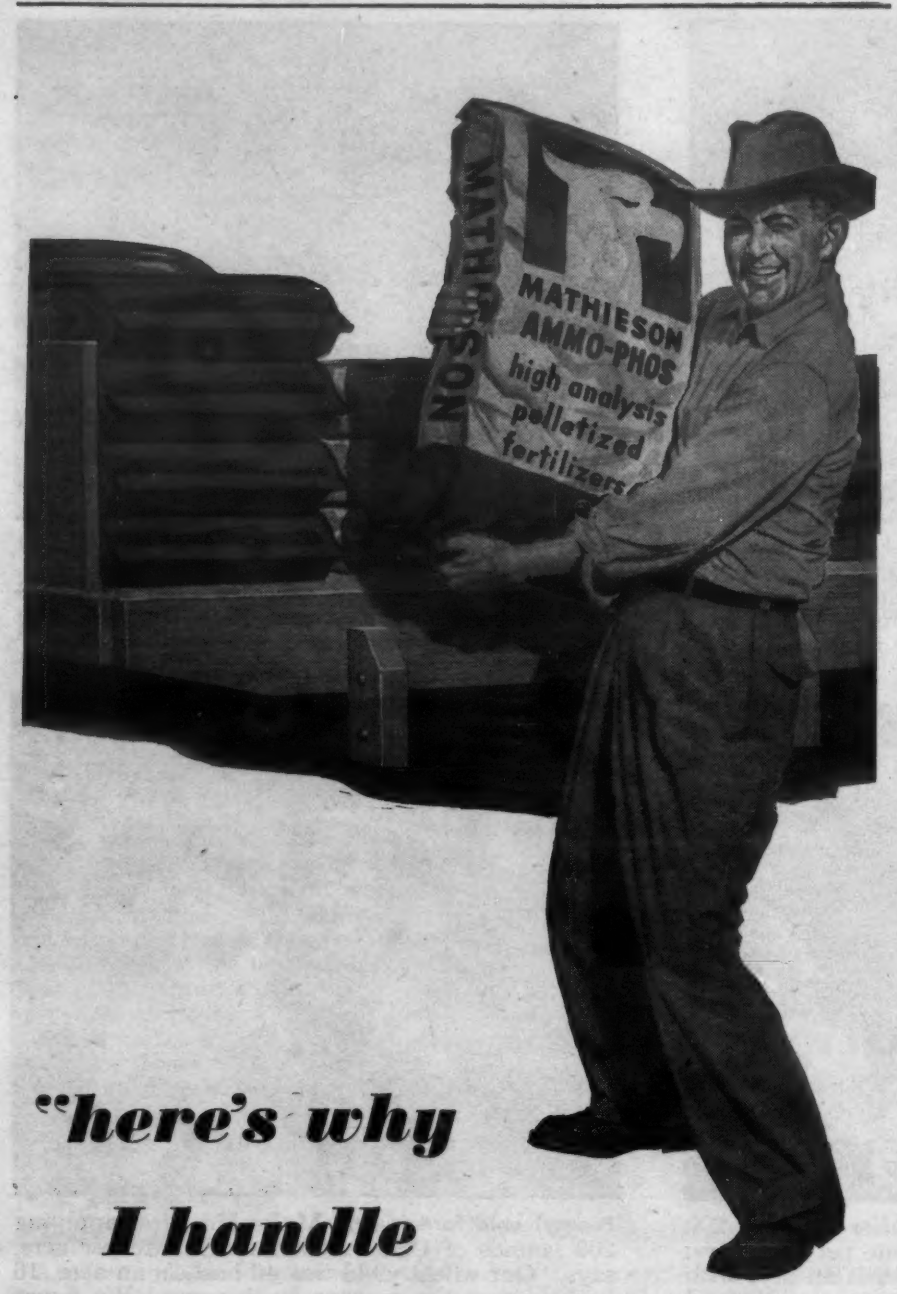

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PLANT FOOD DIVISION • LITTLE ROCK, ARKANSAS

WHAT'S NEW

(Continued from page 18)

eliminates the possibility of malfunctioning due to vibration, moisture or dust, it is said. Push buttons for all controls are provided for manual batching of individual materials. Secure more complete details by checking No. 5416 on the coupon and mailing it.

No. 5451—Bag Closing Heads

The Union Special Machine Co. announces the development of a new class of bag closing machine sewing heads—class 53600. These new units are complete and direct replacements for the older class 14500 machines and are designed for closing light to heavy weight cotton, burlap and osnaburg bags and one- to three-ply paper bags. All units in the new class are single needle, high throw machines and incorporate numerous improvements and new features, according to the company. Rated speed has been increased 50% and an enclosed automatic lubrication system that is fed by two external reservoirs is now used, according to company officials. For particular production requirements, seven individual styles of machines are available in the new line. They include three units for mounting on auxiliary bag machines and four suspended head units with variations of counterweight or top lock balancer. Secure more complete details by checking No. 5451 on the coupon and mailing it.

No. 5450—Bag Sewer

A new product, called the model RC-100 bag sewer has been introduced by the Minneapolis Sewing Machine Co. Height adjustments to accommodate bags from 5 lb. to 100 lb. can be made. The height of the sewing head and conveyor height can also be regulated to conform with the operator's most comfortable sewing position. The model is equipped with a cast aluminum sewing head that sews paper, cotton or burlap. The standard model has a 6-ft. conveyor from center to center of pulleys. The machine is 5 ft. high and 3 ft. wide. To secure more complete details check No. 5450 on the coupon and drop it in the mail.

No. 6409—Aqua Ammonia Converters

A new brochure has been prepared by the J. C. Carlile Corp. on a line of aqua ammonia converters for the agricultural industry, giving a description of the operation of the unit and the handling of aqua ammonia. The company's ammonia converter unit is claimed to provide an adequate mixing chamber for efficient and complete reaction of anhydrous ammonia and water; cools the hot solution sufficiently to permit its storage in low pressure tanks, and carries on these two steps out of contact with the atmosphere, thus preventing loss of nitrogen during processing. The converter is made in a wide range of sizes. Secure the brochure by checking No. 6409 on the coupon and dropping it in the mail.

No. 6411—Dust Mask

Flexo Products, Inc., has prepared a new folder on its dust mask, called by the trade name, Flex-A-Foam. The folder states that the mask weighs one ounce, filters non-toxic dusts as small as 125,000 of an inch, permits easy breathing and has four long-wearing, interlocking parts—all washable. A price chart for the masks, filters and headbands is included in the folder. To secure it check No. 6411 on the coupon and mail it to Croplife.

No. 6414—Applicator

Corn borer control by use of new machine called by the trade name, Gandy Hi-Lo insecticide applicator, is announced by the manufacturer, the E. S. Gandrud Co., In Company officials state that the applicator drops metered amounts dry chemical granules into co whorls to kill corn borers as the try to enter the stalk. The applicator adjusts to heights of 2½-5 f

and spreads to 12- to 14-in. ribbon o granules over each of four rows. The granules combine with dew and rain water in the corn whorl to form a concentrated solution at the point where the newly-hatched borer attacks the stalk, it is claimed. Since granules stay only in the whorl, DDT contamination is greatly reduced, the officials state. A tractor-drawn unit, the applicator drops the granules after plants have returned to an upright position. Dry chemical granules are dropped into corn whorls. Secure more details by checking No. 6414 on the coupon and mailing it to Croplife.

No. 6412—Soil Fumigant

An illustrated informational bulletin on Bromofume soil fumigant has been issued by the agricultural chemicals division of American Potash & Chemical Corp. for use in controlling nematodes in the growing of numerous truck and field crops. The folder includes information on uses for the product, proper soil preparation, methods of application and recommended dosages. Company officials state that the product, an ethylene dibromide fumigant, will increase production in nematode-infested lands, in the growing of such crops as beans, carrots, potatoes, sweet potatoes, lettuce, tomatoes, sugar beets and cotton. To secure the bulletin check No. 6412 on the coupon and mail it to Croplife.

No. 5443—Grain Fumigant

New literature concerning its grain fumigant, "80-20," is available from the Stauffer Chemical Co. The product is described as a formulation for control of insects infesting bulk-stored seeds and grains in farm bins, granaries and elevators. Application instructions for railroad cars and elevator and farm bins—including large and small structures—are available. Fumigation during mild weather is suggested for best results. Dosage and precautionary information are also provided. Secure the information by checking No. 5443 on the coupon and mailing it to this publication.

Sales Manager Named

MINNEAPOLIS — Burton A. Burquest has been appointed sales manager of the E. H. Leitte Co., Minneapolis, a supplier of pesticides and fumigants for the milling industry. Announcement was made by E. H. Leitte, president. Mr. Burquest had been with Pillsbury Mills, Inc. for 15 years.

SAFETY MEETING

(Continued from page 1)

de both the physical layout of a tilizer plant and also the factor "human engineering" where the ployee may be thoroughly indoc- nated in a specific safety program.

In the former instance, he said, ny of the problems to be solved planning a safety program closely rallel those problems and questions countered in planning the physical pects of a new plant. "Just as care- planning is given to the plant yout, process-wise, diligent and lns-taking studies should be made hen planning a safety program," said.

"A careful survey of the plant cilities should be made by compe- nt personnel to determine the more zardous points in the plant layout flow sheet, making sure that pro- r guarding is provided for exposed ars, transmission belts, and rails stairways; open shafts protected; ctrical installations properly ounded; and guards placed at con- yor belt nip points. Of course this only a partial list of the many ints a safety engineer would cover a perusal of the drawings for a w facility or a survey of a plant operation. Every effort should be ade to make the plant as safe as ssible from a physical standpoint.

"After the material phase of hysical engineering for safety has been accomplished, we then enter into the most interesting and prob- bly the most important area of a afety program—human engineer- ng," Mr. Cox declared. "Certainly proper guarding, sufficient light- ng, electrical lockouts, etc., will prevent accidents, but these pre- cautions alone will not make a plant injury free, unless the em- ployees have been thoroughly in- doctrinated in a specific safety program geared or planned for the particular operation.

"In many instances safety pro- rams are not too successful because r too little emphasis is placed on study of the individuals whom the rogram is planned to protect. A afety program that will work in a lant in one area of the country will ot always work in the same type f plant in another section. Thus it s most important to be well cquainted with the people with whom you are working. There should e a thorough understanding of the iewpoint of the employees who are xpected to understand and make perative the planned safety pro- gram.

"In most every safety program the oreman is the key man, hence it is most necessary that he be well versed n good safety practices and able to instill in the employees under his supervision a prevailing sense of safety consciousness," the National chairman pointed out. "Careful pre- placement studies should be made in order that the man may be fitted to the job. Many accidents occur be- cause an employee is unable to adapt himself to a certain type of work.

"Make the safety program per- manent—yes, flexible, but generally permanent. And be sure to make every employee an integral part of the program. Plan a program that makes sense to every employee and you will have a sound, successful and practical safety program," he con- cluded.

A talk "Safety in Our Time" was prepared for presentation at the Baltimore meeting by Paul T. Truitt, executive vice president of the Na- tional Plant Food Institute, but ill- ness prevented Mr. Truitt's presence at the session. Consequently, his paper was presented by Louis H. Wilson, director of information and secretary of the Institute.

Mr. Truitt's paper said that the fertilizer industry faces a challenge at the present time, to make safety an important objective. There are a number of fertilizer companies who "with conviction and competence, already are doing a job on safety," he said. "These units have produced almost perfect safety records. They have earned rewards in the form of greater comfort and happiness for their employees and lower costs for goods produced and more rewarding returns for their stockholders."

On the other hand, the paper declared, there are still many in the industry who could benefit from a good "bang-up" safety program. The basic difference between a mediocre program and one that really succeeds, the paper said, boils down to "the degree to which management and other employees are really interested in safety."

The paper commended the fertilizer industry for accomplishments made thus far in its relatively brief time of broad safety consciousness, but despite notable progress, said "we are not getting better fast enough."

The industry needs to put its weight behind the national safety movement in greater numbers than it is now doing, Mr. Truitt's paper continued. Although the fertilizer section of the N.S.C. ranked fourth in new members during the year ended Oct. 31, 1955, the actual figures do not show such a flattering picture. "We got 38 new members and lost 7; a net gain of 31, which does not seem very large when one thinks of the hundreds of companies and plants that are not members of the section and . . . not actively interested in safety."

Mr. Truitt asserted that any firm that feels it may not get its money's worth out of a membership, should take into consideration the fact that in the eight years between 1947 and 1954, firms which did participate in the safety movement in cooperation with the National Safety Council, reduced the frequency of injury 42.3%. "This reduction by a handful of companies becomes impressive when we compare it with the number of injuries these companies would have experienced had they not reduced the 1946 frequency rate. The comparison shows over a thousand disabling injuries have been prevented."

Expressing his feeling that the fertilizer industry can well afford to go all out for safety, Mr. Truitt said that agriculture, the only customer the fertilizer industry has, is yearly becoming more scientific, more efficient and more businesslike. "Agriculture, per worker, is more highly capitalized than industry; output per man-hour is double that of 25 years ago; workers are becoming fewer in

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number and farms fewer in number but larger in size, with resulting high pressure for more profitable farming operations.

"I suggest that these characteristics and requirements of our only customer, make mandatory the improvement of safety and the reduction of costs. This is the law of the jungle for all companies who expect to survive in a market which is now so fiercely competitive."

That the National Plant Food Institute is vitally interested in the development of safety throughout the industry was made clear in Mr. Truitt's paper. However, he said, such a program should be associated with and under the guidance of the fertilizer section of the National Safety Council, rather than "tied up as a part of a general trade association program." At the same time, he said, the board of directors and the staff of the institute are ready at all times to give their full support to the fertilizer section of NSC.

The most important single thing, the paper stated, is to get a larger portion of the total plants in the U.S. back of the safety movement. At present, he said, the section's membership, including individual plants, is about 200 out of a potential of around 1,200. This, he reiterated, is not sufficient to keep the accident frequency and severity rate down to a favorable level on an industry-wide basis.

"So, we feel that we are at the point where the challenge is acute," he said. "What can we do to engender real interest and to build membership? We need new ideas on this point," he added, saying in conclusion that the current "picture of safety" contest should build up needed interest, although entries are not many in number as yet.

J. E. Nicholas, manager of the Glidden Company, Baltimore, discussed how the safety organization of small plants may be brought about. He related the experiences of a number of plants employing between 150 and 450 persons. One plant had made an excellent safety record through the activities of a safety committee comprising representatives of both labor and management, but another had a rather bad record of accident frequencies and severity, he said. Despite many physical improvements, its record remained unfavorable. Actually, some 350 improvements were made with new guards being put on machinery, new handrails on stairs and in other places, but in spite of this, lost time accidents continued to plague the firm.

The reason for this, Mr. Nicholas opined, was that management lacked the keen interest and information in and about the safety program. In order for such a project to be entirely successful, the speaker said, the safety message must reach top management and be brought down to the men in the plant.

A formal "supervisory safety committee" composed of ten persons later launched safety contests, provided instructions for supervisors, and they, the supervisors, in turn brought this information to the men at the working level. A series of monthly meetings kept the interest in safety at a high point, with good results.

Study of a third plant's situati indicated that to correct a bad s uation there, deep changes wo have to be effected. This pl handles large quantities of corrosi chemicals, which in turn requir large pieces of equipment. Since t plant area was relatively small, t made small passageways, low hea room in some areas, and other ha ardous conditions.

Much of the work was of hea type, with backstrain one of the co tributing factors in a high accide rate. The turnover of help was hig and another complicating factor w the relatively high numbers of ine perienced help called in for the ru season.

Recommendations for cutting th accident rate at a plant of thi type included a detailed study o the various jobs, with emphasis on labor-saving machinery to reduce the necessity of much of the lifting and other strenuous physical work called for in the plant.

Supervisors were taught safet and instructed to "talk safety" t their men at every opportunity. Th workers were encouraged to improv their own situation through the or ganization of worker groups to stud safety and to hold meetings on th subject at regular intervals.

Mr. Nicholas observed in closing that in making investigations of ac cidents, a technical approach is fre quently more objective than is on conducted by a labor-management committee. He said that in the tech nical investigation, the emotiona side is largely in the background with investigators reporting solely o what they learn from a technical ap proach. In the latter case, emotion are naturally a much greater facto and consequently, it is more difficul for a group of an accident victim' fellow-workers to investigate and t make recommendations in an entire ly objective manner.

An enlightening presentation of slide-lecture on "Safe Handling o Compressed Gas in Cylinders" wa made by Allen L. Mossman, techni cal director of the gas division of th Matheson Co., Inc., E. Rutherford N.J.

Mr. Mossman described all of th rules of handling cylinders of com pressed gases, warning his listener against relaxing their precautions against accidents with these high pressure containers. He showed pic tures of a number of sample labels all of which come under Interstate Commerce Commission jurisdiction.

He told of numerous incidents involving cylinders, where they had accidentally been knocked over and the valve at the top had ruptured. In one such case, he said a cylinder became a veritable projectile, propelled by the force of the escaping gas. It crashed through two partitions and an outside brick wall before its force was spent, he reported. Anyone in its path would have been killed, he assured the safety group.

"Keep the safety cap on the tank at all times," he urged the crowd. The pressure cylinder is perfectly safe when handled correctly, but there is small margin for error, it was pointed out. Slides were shown to illustrate correct methods of transporting the cylinders, indicating that they should always be strapped or chained to the hand truck to prevent their rolling off or slipping.

Elmer C. Perrine, technical representative of the nitrogen division of Allied Chemical & Dye Corp. discussed the dangers from flash fires in fertilizer mixers. He said that carelessness and poor maintenance are usually responsible for flash fires in mixers, although "faulty design or design that dangerously complicates the operators' job has a share of the guilt," he added.

Contrary to popular belief, Mr. Perrine said, continuous ammoniators are no more prone to flash fires

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are batch or other types of ers. "It would be more proper to te these fires to the improper of sulfuric acid which is used to up some of the ammonia con- ed in solutions that also contain monium nitrate. We might even the potassium chloride of most nulas as a factor, once the use sulfuric acid has gotten beyond onable control," he said.

Mr. Perrine showed the group a ce of ammoniating pipe which ginally had quarter-inch holes red in it for an even flow of sul- ric acid. But the corrosive action the acid had enlarged these holes that the entire under portion of pipe was open which allowed e acid to pour into the mix. "With id used indiscriminately in com- nation with ammoniating pipes at are of poor original design or lowed to degenerate to a low ate, we have the settings for re," he declared.

"Short distributor pipes and those ose effectiveness has been des- yed by corrosion or by plugged es, are inviting trouble. Ammon- n nitrate solutions and sulfuric d are being combined directly en if unintentionally in such faulty uipment in large quantities," he ded. The action of sulfuric acid on mmonium nitrate in local heavy con- ntration, plus complications of the esence of potassium chlorides, may nerate enough heat to start am- onium nitrate burning, or cause it explode, it was explained.

A panel on accident case histories unded out the meeting. With F. ayne High, Baugh Chemical Co., altimore, as moderator, four re- rts were made on recent accidents fertilizer plants, with discussions how they could have been avoided. R. G. Diserens, safety director of hillips Chemical Co., Bartlesville, kla., and secretary of the National rtilizer section, described the faults ading up to an accident with sul- ric acid. In this case, a worker d stepped up on a pipe valve to spect a slight leak in the sulfuric id line which entered the room ear the roof. The unsupported pipe oke above his head, spraying the orker with the acid. Although the ccident was not fatal, the workman ffered severe burns and was hos- italized for several weeks.

In this case, many rules were broken, since the worker failed to wear protective clothing, including goggles; he stepped on a pipe valve, a forbidden act; and the pipe itself was not properly braced.

John S. L. Roszel, manager of employee relations, Olin Mathieson Chemical Corp., Baltimore, told of a near-tragedy when a railroad tank car of anhydrous ammonia broke through a barrier at the end of a side track and careened out into a street. Luckily, the car did not upset, and only a small amount of damage was done. In reviewing the accident, it was apparent that the workmen had made no provision for braking the car nor blocking its wheels as it rolled down a slight incline.

John E. Smith, safety director, Spencer Chemical Co., Pittsburg, Kan., described an accident which occurred when a workman attempted to tighten a leaky valve on a tank car of ammoniating solution. Exerting too much leverage, the workman twisted off the pipe, allowing the material to escape. In his effort to get away fast, the man fell from the car, breaking both of his ankles. It was pointed out that here, too, the worker failed to have proper protection such as a gas mask and acid-resistant gloves. With this material, he could have handled the situation much more effectively.

J. E. Reynolds, Jr., operations manager, mixed fertilizer department of Davison Chemical Co., Baltimore, prepared a report on the recent explosion of a nitrogen solution storage tank. In Mr. Reynolds' absence, A. B. Pettit presented the paper which described the disintegration of the 18 thousand-gallon steel storage tank. Efforts to reduce heat and pressure within the tank were ineffectual, the paper reported, and finally it ruptured scattering metal over a wide area.

Subsequent investigation showed that corrosion inside the tank had weakened it severely, particularly along welded seams which had completely disappeared. Pictures of the tank before and after were projected on the screen.

GUEST SPEAKER

LITTLE ROCK—Samuel L. Nevins, head of the plant food division of Olin Mathieson Chemical Corp., with headquarters at Little Rock, was guest speaker for the 41st annual "Agri Day" at the University of Arkansas, Fayetteville, April 28. His subject was "The Future of Agriculture in Arkansas."

American Potash Opens Office in Washington

LOS ANGELES—American Potash & Chemical Corp. has announced the establishment of offices at Washington, D.C., for the purpose of improved liaison between governmental agencies and the company's Department of Defense programs, according to an announcement by George S. Wheaton, company vice president, defense programs.

Herbert W. Yeagley has joined American Potash & Chemical Corp. to head the Washington office, reporting to Mr. Wheaton at the company's Los Angeles headquarters. The Washington office will be located in the Investment Bldg. at 15th and K St.

Mr. Yeagley, who was educated at Alabama Polytechnic Institute, came to American Potash & Chemical Corp. from Monsanto Chemical Co.'s Inorganic Chemicals Division at St. Louis, where he was manager of the sales-production liaison department. He had been with Monsanto since 1942, being assigned to its Washington office from 1946 to 1951.

University of California Starts Resistance Study

SACRAMENTO — Under direction of William M. Hoskins of the entomology department, a new project is underway at the University of California, Berkeley, to discover why insects have developed an immunity to poisons which 10 years ago were lethal.

Financed by an $8,192 grant from the U.S. Public Health Service, the investigators hope to discover where an insecticide goes after it contacts the insect's body; what happens to it chemically inside the body and how temperature affects insect resistance. First experiments will deal with DDT.

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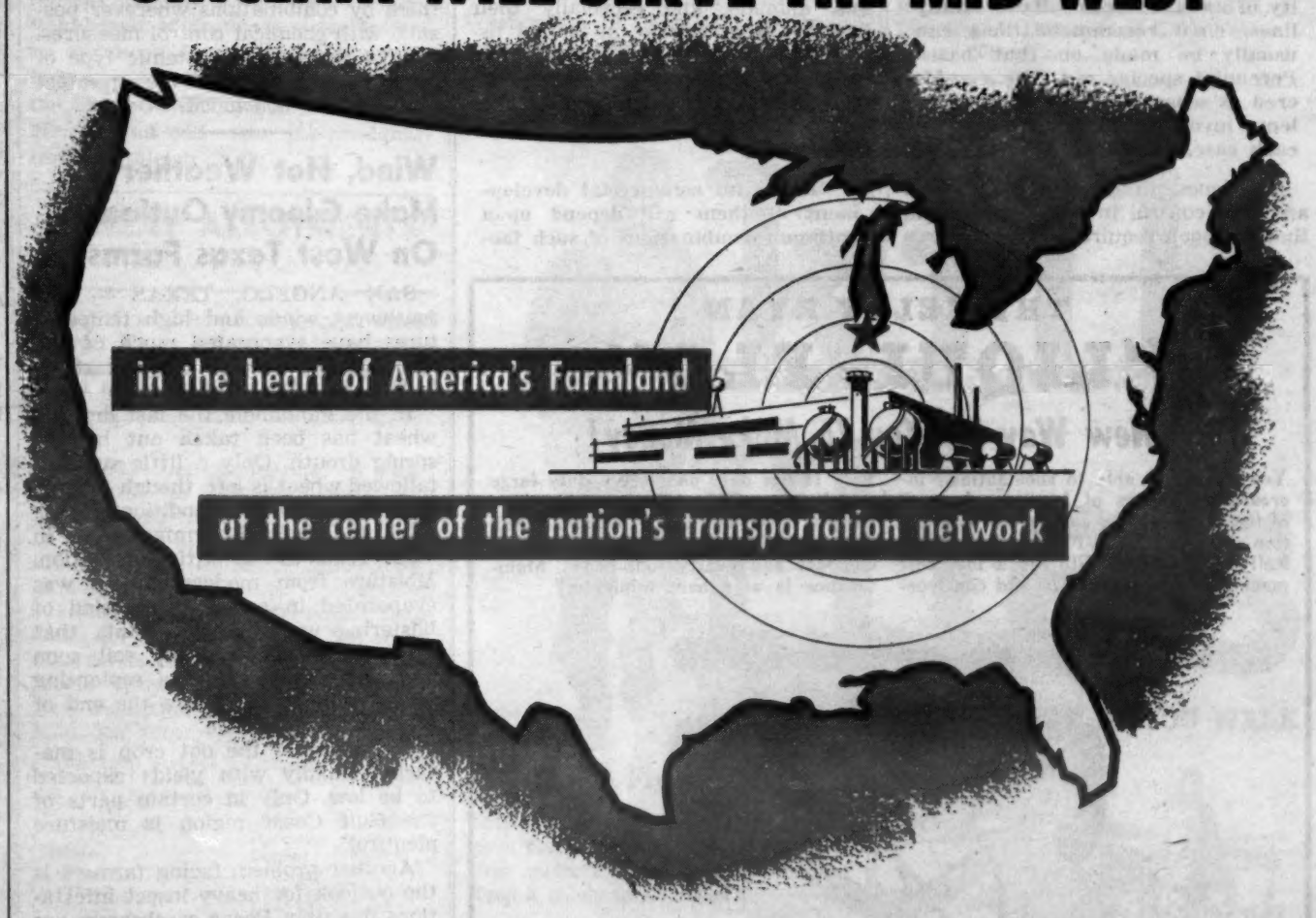

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California Conference Lays Emphasis on Specificity in New Agricultural Materials

LOS ANGELES, CAL.—Featuring a panel discussion on "The Experimental Status of New Pesticides," the Western Agricultural Chemicals Assn. met May 15 at the Hotel Clark, Los Angeles, with an attendance of 130.

Comprising the panel were scientists from the University of California's College of Agriculture, including Dr. Boysie E. Day, plant physiologist, Citrus Experiment Station; Dr. W. W. Jones, horticulturist, Citrus Station; Dr. J. B. Kendrick, Jr., plant pathologist, Citrus Station; Dr. R. L. Metcalf, entomologist and chairman of the department of entomology, Citrus Station; Dr. William Moje, chemist at the Citrus Station and J. Ed. Swift, extension entomologist, University of California, Berkeley.

Keynote of the talks given by panel members centered around the idea of specificity of the new pesticides. Dr. Day declared that "our recommendations in the use of herbicides are becoming more specific. Each of the many new chemical compounds available fits into its particular selectivity pattern both as to tolerant crops and to susceptible weeds. The susceptibility of annual weeds follows family lines, and recommendations can usually be made on that basis. Perennial species must be considered as separate and distinct problems involving thorough study in each case."

Dr. Jones, in discussing nutrition and pest control in citrus trees, said that nitrogen requirements for citrus may be supplied by urea that is low in biuret content. Iron chelates, he said, are in the experimental stage, and when using 2,4-D in citrus, the isopropyl ester is recommended.

Discussing the subject of chemotherapy versus systemics, Dr. Kendrick pointed out that "chemotherapy implies treatment of plants already infected, in an effort to eradicate a disease. The action takes place inside a plant and may, or may not, act at the site of application. Chemical fungi toxicants which translocate inside a plant are regarded as systemic —thus chemo therapeutant-type chemicals are not necessarily systemic chemicals. Rather, the systemics may be a special type of chemo therapeutant. When a systemic chemical is one which protects a plant against infection, it is not generally considered to be a chemo therapeutant."

In his talk reporting on the development of new insecticides, Dr. Metcalf said that among the new experimental insecticides currently under development, the organic phosphorus esters outnumber other compounds three to one. "The development of the phosphorus compounds is favored by their comparatively low degree of chronic hazard to man and animals, and especially their freedom from storage in animal tissues and their lack of excretion in butterfat. There are hundreds of phosphorus compounds which possess a high degree of insecticidal effectiveness.

"Successful commercial development of them will depend upon optimum combinations of such factors as low cost, favorable ratio of mammalian toxicity to insect toxicity, the degree of residual activity, systemic action and selective toxicity to insects. Present trends favor the development of specialty items with unique combinations of those properties."

Dr. Moje, in talking about screening new materials for various types of agricultural pest control, explained that "instead of haphazardly screening chemical compounds for nematode, fungi and bacterial controls, we are now in a position to select soil fumigants on the basis that toxicity is primarily a function of reactivity."

Mr. Swift declared that the most effective type of protection for crops is likely to come through the specificity of pesticides. "The specificity of a pesticide against each crop pest will probably be the best solution to most effective crops protection," he said. "Through intensive study of the specific uses of agricultural chemicals we shall more quickly arrive at the type of protection desired with the least hazard. In order to attain that objective we must know in each case the biology and life history of the pest involved, then select the pesticide that will do the most effective job against that pest at a given time. This necessitates a thorough knowledge of pests and the chemicals involved.

"In working on this problem we must not overlook the value of natural controls. We therefore must develop biological control measures and take the greatest advantage of them by combinations wherever possible with chemical control measures. In this respect the systemic type of chemicals now offer the greatest promise," he concluded.

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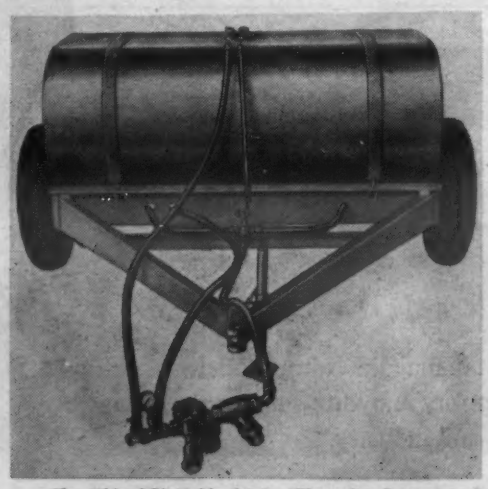

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Wind, Hot Weather Make Gloomy Outlook On West Texas Farms

SAN ANGELO, TEXAS — Dry southwest winds and high temperatures have evaporated much of the moisture from recent rains, particularly in the West Texas area.

In the Panhandle the last dryland wheat has been taken out by the spring drouth. Only a little summer fallowed wheat is left, though irrigated wheat is in fair condition.

All the dryland farming areas in West Texas are in critical condition. Moisture from moderate rains was evaporated in a four-day period of blistering wind. Cotton plants that had started through the soil soon died, and farmers face a replanting job, if rains come before the end of the planting deadline.

Farther east the oat crop is maturing rapidly with yields expected to be low. Only in certain parts of the Gulf Coast region is moisture plentiful.

Another problem facing farmers is the outlook for heavy insect infestations this year. Pecan casebearers are numerous in some areas. Farmers in Central Texas who planted over are finding that insect control must be started earlier than usual. Thrips, aphids, fleahoppers and worms are already beginning to show up in the older cotton fields.

South Carolina Tonnage

CLEMSON, S.C. — Fertilizer sales in South Carolina during April totaled 169,465 tons, compared with 156,388 tons in April a year ago, according to the state Department of Fertilizer Inspection and Analysis. Sales for the first ten months of this fiscal year (July-April) totaled 742,031 tons, an 8% decrease from 810,828 tons in a corresponding period a year earlier.

MISSOURI FIELD DAY

COLUMBIA, MO.—The University of Missouri's annual soils and crops field day will be held June 4-5.

Alcoa Chairman Buys 25,000 Shares Of Re-Mark Stock

MIAMI—Arthur Vining Davis, 8[illegible] year-old chairman of the Aluminu[illegible] Company of America, has made [illegible] initial purchase of 25,000 shares [illegible] preferred stock of Re-Mark Chemic[illegible] Co., an agricultural chemical firm l[illegible] cated in Miami.

The purchase marks the entran[illegible] into Florida chemical industry activ[illegible] ty for Mr. Davis, whose fortune h[illegible] been estimated to be as high as 3[illegible] million dollars. He has been investin[illegible] in Dade County (the Greater Miam[illegible] area) real estate in the amount [illegible] about $250,000 a day since the begi[illegible] ning of 1956.

This spending volume, togethe[illegible] with previous land investment, ha[illegible] given him control of one eighth of th[illegible] land area of Dade County.

For his first venture into Florida industry, Mr. Davis has chosen a family-controlled enterprise founded by David Marks, who is president of Re-Mark Chemical Co. The firm manufactures agricultural chemicals, fertilizers and other chemical products for farm and household use.

Three plants are now in operation —Miami, insecticides; Belle Glade Fla., insecticides; and Hollandale Fla., anhydrous ammonia and aqua ammonia—with a sulpha mill under construction at Belle Glade. A fifth plant is contemplated to be built in Cuba to serve the Caribbean trade.

Re-Mark's volume was $574,205 in 1955 and Mr. Marks has predicted that within the next year, volume will double. Re-Mark's preferred stock was originally issued in April, 1955 at $1.25 a share. Present quotations range up to a high of $3.75 a share.

MEDFLY

(Continued from page 1)

propriation would be disbursed approximately as follows:

1. The major part of the new funds will be devoted to aerial spraying using Malathion.

2. Other money will be used for policing the quarantine restriction.

3. The possible use of soil insecticides.

In this latter connection, USDA officials say they contemplate using Heptachlor and Dieldrin.

Immediate use of these latter products may be delayed however as the government is meeting resistance from local people who object to the use of such materials in areas where children play.

This concentrated drive on the Medfly originated in a request from the White House to the Senate which last week took up a previously passed agriculture department appropriations bill which went before the Senate last week. However it seemed to by-pass great interest in Florida Democratic senators who put their shoulders to the legislative wheel when the appropriations bill went before the Senate.

At that time Senators Spessard Holland and George Smather took the floor to ask that this amendment to the House appropriations bill be given top priority for passage (Croplife May 14, page 1). They, as well as the White House deserve credit for the final drive which seems to nail down sufficient funds to contain the Medfly within the relatively small area of 20-square-miles in Dade county.

The Senate accepted the Holland amendment to the agriculture appropriations bill and when it is returned to the House for final approval it is seen certain of adoption.

INSTITUTE

(Continued from page 1)

ute's new movie, "What's In The ?".

he presentation of the Institute's ual "Soil Builders Award for tors" winners, by Louis H. Wil- secretary and director of infor- tion of the Institute.

time-lapse film presentation on eing Plants Feed" by John Ott ohn Ott Pictures, Inc., Winnetka, a national authority on time- se photography.

Sen. Fulbright will speak on "Our tion's Role in World Tension."

The Institute's annual business eting also will be held on June preceded by a memorial resolution sented by Hugo Riemer of New rk, chairman of the Memorial mmittee.

The Institute's board of directors ll hold a breakfast meeting on June

A hospitality hour, courtesy of the trogen producers, will be held in e evening of June 11.

The annual banquet of the Institute ll be held June 12, preceded by a spitality hour, courtesy of the tash producers.

The ladies program for the con- ntion includes a garden party at 4 m. June 10; a tour of the Green- ier starting at 10 a.m. June 11; idge and canasta party at 2 p.m. ne 11; golf tournament at 10 a.m. ne 12; and tennis the afternoons June 11 and June 12. The ladies so are invited to Mr. Ott's presen- tion, "Watching Flowers Grow."

Committees for the Convention are follows:

Memorial Committee: Hugo Riemer, chair- an; L. Dudley George and G. H. Kings- ry.

Hospitality Committee: Mr. and Mrs. F. J. oods, co-chairmen; Mr. and Mrs. Horace Albright, Mr. and Mrs. B. W. Bellinger, r. and Mrs. J. C. Bennett, Mr. and Mrs. E. Bennett, Mr. and Mrs. E. N. Carvel, r. and Mrs. T. W. Childs, Mr. and Mrs. B. Copeland, Mr. and Mrs. J. E. Cul- epper, Mr. and Mrs. James F. Doetsch, r. and Mrs. Marlin Geiger, Mr. and Mrs. B. Hicks, Mr. and Mrs. E. M. Kolb, Mr. nd Mrs. R. B. Lenhart, Mr. and Mrs. A. F. eed, Mr. and Mrs. J. W. Rutland, Mr. and rs. J. C. Totman, and Mr. and Mrs. T. M. Vare.

Horseshoe Pitching Contest Committee: A. Schultz, chairman; H. G. Cunning- am, M. G. Field, C. R. Martin, H. A. Par- er and R. Q. Parks.

Tennis Committee: Joseph Mullen, chair- an, A. J. Dickinson, George H. Dunklin, rs. G. D. Glover, Mrs. John J. Weldon and . N. Watmough, Jr.

Committee on Prizes: Mrs. J. F. Corkill, hairman; Mrs. Dean R. Gidney, W. R. Morgan and R. S. Rydell.

Men's Golf Committee: R. S. Rydell, hairman; J. D. Collins, John W. Hall, lyde T. Marshall, W. R. Morgan and Gene an Deren.

Ladies' Golf Committee: Mrs. J. D. Stew- rt, Jr., chairman; Mrs. R. H. Linderman, rs. B. P. Redman, Mrs. John B. Sanford, rs. W. T. Steele and Mrs. G. Albert Woods.

Ladies' Committee: Mrs. J. A. Howell, hairman and Mrs. George E. Petitt, vice hairman; Mrs. John A. Miller, Mrs. Ed- in Pate, Mrs. J. E. Totman and Mrs. Louis Ware.

Bridge and Canasta Committee: Mrs. ohn R. Taylor, Jr., chairman; Mrs. C. C. rledge, Mrs. Thomas E. Camp, Jr., Mrs. eorge W. Gage, Mrs. C. E. Reger and rs. Tom Wright.

Three Killed in Blast at Mississippi River Chemical Plant

ST. LOUIS — An explosion early May 19 at the new Selma, Mo., plant of the Mississippi River Chemical Co. caused the death of three employees. The explosion and flash fire was believed to have started in a hydrogen compressor used in the production of anhydrous ammonia.

The men who died as a result of burns were William L. Weger, superintendent of the ammonia operation; Max Helm and William Hutchins, all of Festus, Mo. The plant which was opened about eight months ago is located about 40 miles south of St. Louis.

Last week company officials indicated that ammonia production would be temporarily halted pending an investigation. It was pointed out that nitric acid and ammonium nitrate operations were continuing since these facilities were not damaged by the blast.

C. F. Ireland

JOINS SOUTHERN NITROGEN—C. F. Ireland has recently been named North Carolina sales representative for Southern Nitrogen Co., Inc. Mr. Ireland was formerly associated with Allied Chemical & Dye Corp. as an agronomist. For some time, he was a member of the fertilizer manufacturing technology committee, a joint effort of Tennessee Valley Authority and the National Plant Food Institute. He is a native of Florida and holds a B.S. degree in agricultural chemistry from North Carolina State College. He had completed one additional year of graduate study toward an advanced degree in agronomy before he was called to active duty with the Chemical Warfare Service in 1942. Mr. Ireland will make his headquarters at Raleigh, N.C.

WHEAT ALLOTMENTS

(Continued from page 1)

signated as "non-commercial wheat areas." Farm wheat allotments and marketing quotas, if approved, do not apply in these non-commercial areas, which are the same for 1957 as for 1956.

The 12 non-commercial wheat states and the allotments that would have formed the basis for 1957 county and farm allotments in each state are as follows: Alabama, 22,107 acres; Arizona, 19,806 acres; Connecticut, 601 acres; Florida, 1,802 acres; Louisiana, 3,671 acres; Maine, 1,528 acres; Massachusetts, 683 acres; Mississippi, 20,049 acres; Nevada, 12,029 acres; New Hampshire, 67 acres; Rhode Island, 562 acres; Vermont, 480 acres.

The 1957 acreage allotments for the 36 commercial wheat states, compared with the 1956 allotments, follow:

State:	1956 Allotment (acres)	1957 Allotment (acres)
Arkansas	47,433	53,479
California	455,719	436,142
Colorado	2,702,237	2,766,025
Delaware	36,370	33,601
Georgia	105,624	103,143
Idaho	1,159,816	1,156,480
Illinois	1,384,461	1,414,575
Indiana	1,166,484	1,144,137
Iowa	139,443	115,485
Kansas	10,587,206	10,615,188
Kentucky	219,495	213,891
Maryland	187,546	178,898
Michigan	969,478	957,020
Minnesota	726,503	699,354
Missouri	1,163,686	1,253,735
Montana	4,002,138	4,042,623
Nebraska	3,200,332	3,234,827
New Jersey	55,141	53,859
New Mexico	465,924	470,705
New York	312,175	317,602
North Carolina	283,395	284,254
North Dakota	7,321,263	7,327,856
Ohio	1,594,233	1,558,108
Oklahoma	4,860,057	4,878,623
Oregon	819,522	819,060
Pennsylvania	620,135	600,754
South Carolina	133,438	136,151
South Dakota	2,749,275	2,746,578
Tennessee	199,261	198,701
Texas	4,227,136	4,149,071
Utah	314,994	314,303
Virginia	261,043	252,514
Washington	2,009,033	1,994,450
West Virginia	42,956	40,030
Wisconsin	45,147	40,215
Wyoming	303,725	295,678
Total commercial area	54,871,924	54,900,115
Total non-commercial area	73,076	83,385
National reserve	55,000	16,500
Total	55,000,000	55,000,000

FARM BILL

(Continued from page 1)

grain sorghums. For those crops the new farm bill provides a price support level of 76% of parity for the 1956 crops.

Industry officials here speaking to Croplife say that they are disturbed by the heavy production incentive seen as now in the new farm bill. They say, however, that their industry may be the immediate beneficiary of this new law, but that the chemical industries would, on balance, prefer that the farm economy be brought into balance rather than to gain a short term advantage.

Trade sources report here that the corn price support levels plus the 76% of parity support for oats, rye, barley and grain sorghums likely will not mean an advance in acreage for these crops this year. USDA experts feel that these price support levels will mean some relatively small increase in corn acreage in the commercial corn belt at the expense of soybeans. This is all for the good of the plant food industry since soybeans have thus far not shown any broad market for plant foods.

This crop year may be a big chance for the plant food industry to drive home to many doubting Thomases that adequate application of plant food may demonstrate that the kernel of the nut is cost of production per produced unit of a crop —corn for example.

Corn farmers speaking here in Washington to Croplife say that an expenditure of $25 per acre for nitrogenous fertilizer materials cannot fail to pay off on the basis of the price support levels now set for corn. Of course, this statement fails to qualify that this conclusion is based on the better corn lands and must not be seen as a commercial corn belt average.

Bids Awarded for Wyoming Spraying

CHEYENNE, WYO. — The Big Horn Flying Service of Greybull has been awarded a contract for aerial spraying of 125,000 acres of Wyoming rangeland this summer. Mel Christler, operator of the firm, submitted a bid of 15¢ an acre.

Contracts for supplying the oil and insecticide for the work went to Carter Oil Co. and United Heckathorn Co.

IOWA FIELD DAY

AMES, IOWA — Iowa farmers attending this year's Iowa agricultural engineering field day, June 2, will be seeing and hearing about many new developments in agricultural research. Hobart Beresford, head of the agricultural engineering department at the college, reports that college agricultural researchers will appear on the morning program to review late developments on granular insecticides.

Kentucky Firm

ELKTON, KY.—Elkton Ammonia, Inc., has been formed here to deal in fertilizer and real estate. Incorporators are Rudolph Hall and H. E. Murrey of Guthrie and Earl Welborn, Jr. of Trenton.

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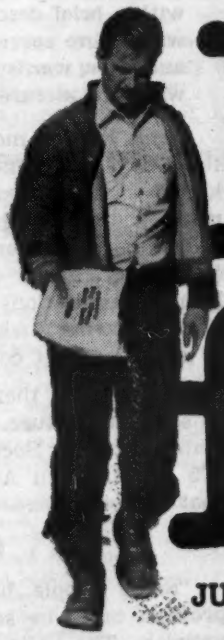

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Croplife®

A WEEKLY NEWSPAPER FOR THE FARM CHEMICAL INDUSTRY

The regional circulation of this issue is concentrated in the Midwestern states.

Bankers Meet With Growers in Louisiana

The agricultural chemical industry has long recognized that the understanding cooperation of bankers and other money lenders can be an important asset in selling its products to farmers. It is encouraging to see this idea being carried out on the grassroots level here and there.

Louisiana bankers and farmers of the state held a series of clinics last week in various spots around the state, under the sponsorship of the Louisiana Bankers' Assn., the Louisiana State University Agricultural Extension Service and the Federal Reserve Banks of Dallas and Atlanta. Each clinic featured a visit to a typical farm, a luncheon, and a discussion of farm finance problems.

The meetings are said to be an outgrowth of the increasing need for sound financing in modern agriculture and the growing interest of private banks in farm finance as a source of business. Bankers are naturally not content to leave farm financing problems to government lending agencies. At the same time, farmers are also getting a better idea of the kind and extent of assistance that the banks are prepared to offer them.

The farmer's financial problems are larger and more complex than they ever were before. Because of high values placed on land, large investments in machinery and the necessary high cost of making a crop, farmers have a bigger capital investment and a greater turnover of money than at almost any time before. They have to use more money in their operations.

These considerations, plus the fact that farmers have retained their good credit record in paying off their farm obligations, makes farm finance a most interesting field for the banks.

It is a matter of considerable interest to the fertilizer and pesticide trade that bankers generally are taking a new look at the idea of lending money to farmers so that these materials may be purchased by the latter. Of all people, the banker should be sold on the idea of using these chemical tools for reducing unit costs of producing a crop. They know that under such a setup, both the farmer and the banker will prosper.

And it goes without saying, the entire industry that supplies chemical products to agriculture stands to gain, too!

Wider Support for Safety Needed by the Industry

The need for more fertilizer manufacturing firms to put their weight behind the industry's safety movement is widely recognized by leaders in the trade. It would be difficult to overemphasize the importance for plants large and small not only to become more safety conscious, but also to become members of the fertilizer section, National Safety Council.

It is true that membership in the fertilizer section has been on the increase for the past few years, but as was said by Paul T. Truitt, executive vice president of the National Plant Food Institute, in a paper prepared for delivery at a recent safety meeting, "We are not getting better fast enough."

Mr. Truitt's thought is that although the fertilizer section was ranked fourth in membership gain among the NSC's 27 industrial groups, the section's net gain of 31 new members does not appear too impressive in view of the hundreds of companies and plants that are not yet members.

Some other observations made by Mr. Truitt bear repeating here, we think. Addressing nonmembers of the safety section, he assured them that time, effort and money spent in promoting safety in a company are well spent. "If any of you feel that 'well, after all, maybe it won't pay, or we won't get our money's worth,' please note that, during eight years between 1947 and 1954, those companies which did participate and which did promote safety and reported to the National Safety Council, reduced the frequency of injury by 42.3%."

This reduction by a handful of companies becomes even more impressive when it is compared to the number of injuries these firms would have experienced had they not reduced the frequency rate. The comparison shows that over 1,000 disabling injuries have been prevented in this relatively short time, and who can estimate what the cost of these accidents would have been? One man's guess would be about as accurate as another's . . . but all would agree that the total loss in dollars would be in the hundreds of thousands. The cost in pain and regret is of course impossible to calculate.

One means of showing graphically some of the forward steps toward safety in fertilizer plants around the nation, is the "Picture of Safety" contest which is scheduled to continue until June 30. Fertilizer people are invited to take photos of new devices, improved equipment, guards, etc., and send such pictures to the National Safety Council with a brief description of what the hazard was before corrective measures were taken and a few words concerning results achieved when the pictured device was put into play.

Even though most fertilizer plants are busy these days, we want to encourage any and all to keep a sharp lookout for places in or around the plant where a "picture of safety" may be taken. As has been mentioned before here, entrants need not worry about getting an elaborate photo. Fancy presentations are not only unnecessary, but also somewhat undesirable, since the basic idea is the thing that counts most.

Just in case there may be doubt as to where to send the picture, here's the address: Mr. J. C. Kato, Fertilizer Section, National Safety Council, 425 N. Michigan Ave., Chicago 11, Ill. Get out that camera!

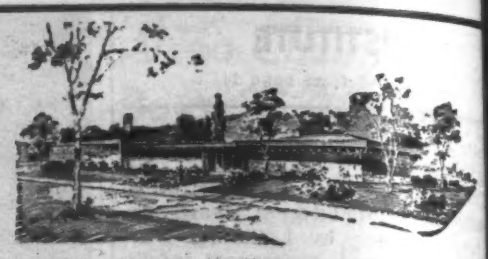
Quote

"Some people have thought that the farm problem could be solved with a single sweeping program. The basic mistake is the misconception that there is a single farm problem. There are many problems and they require many solutions —and few major problems can be solved overnight.

"Change, I believe, is the root of our problems. Change ultimately will bring agriculture into step with our expanding economy. Change is inevitable and it is good. But, in the period of great transition, and that is where we are, it does work hardships. The major factor in the change has been increased farm efficiency—efficiency in labor; and improvement in crops and animals.

"As farmers, we can no longer farm like dad. Farming today is a scientific business and the farmer must be part scientist, part businessman. He can get help in both these areas from the county agent, the university, his farm organizations, and from other sources.

"But seeking out these latest scientific developments will only make it that much more important for him to be economist enough to determine how his plot of land, his animals, can best fit into the national economy and into the particular demands of his market."—Dr. E. B. Fred, president of the University of Wisconsin, in recent address at Farm and Home week.



Croplife

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CROPLIFE is a controlled circulation journal published weekly. Weekly distribution of each issue is made to the fertilizer manufacturers, pesticide formulators and basic chemical manufacturers. In addition, the dealer-distributor-farm adviser segment of the agricultural chemical industry is covered on a regional (crop-area) basis with a mailing schedule which covers consecutively, one each week, four geographic regions (Northeast, South, Midwest and West) of the U.S. with one of four regional dealer issues. To those not eligible for this controlled distribution Croplife subscription rate is $5 for one year ($8 a year outside the U.S.). Single copy price, 25¢.

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MEETING MEMOS

ne 5-6—North Central Division, American Phytopathological Society, Kansas State College, Manhattan, Kansas.

ne 5-7 — Annual Fertilizer Tours and Conferences, sponsored by the Alabama Agricultural Experiment Station, in cooperation with the Alabama Soil Fertility Society; June 5, Crossville and Alexandria; June 6, Auburn; June 7, Headland.

ne 10-13—National Plant Food Institute, Annual Convention, the Greenbrier, White Sulphur Springs, W. Va.

ne 20-22—Northeast Branch, American Society of Agronomy, Summer Meeting, University of Maryland, College Park, Md.

ne 26-28, Pacific Branch, Entomological Society of America, Hotel Claremont, Berkeley, Cal.

ne 28-30—Association of Southern Feed & Fertilizer Control Officials, 14th Annual Convention, Hotel Roanoke, Roanoke, Va.; Bruce Poundstone, Kentucky Agricultural Experiment Station, Lexington, Ky., secretary-treasurer.

ne 28-30—Seventh Regional Fertilizer Conference of the Pacific Northwest, Chinook Hotel, Yakima, Wash.

ne 30—Del-Mar-Va Peninsula Fertilizer Assn., 35th Annual Convention, Hotel George Washington, Ocean City, Md., F. N. Strudwick, P.O. Box 199, Salisbury, Md., Secretary.

ly 12—South Carolina Fertilizer Meeting, Tour of Edisto Experiment Station, Blackville, S.C.

ly 19-20—Southwestern Fertilizer Conference and Grade Hearing, Buccaneer Hotel, Galveston, Texas.

ly 25-27—Northwest Association of Horticulturists, Entomologists and Plant Pathologists Conference, Northwest Washington Experiment Station, Mount Vernon, Wash.

ug. 1—Kentucky Fertilizer Conference, Guignol Theatre, University of Kentucky, Lexington, Ky.

ug. 14-15—Ohio Pesticide Institute, Summer Meeting, Ohio Agricultural Experiment Station, Wooster, Ohio, J. D. Wilson, Wooster, Ohio, Secretary.

Aug. 17-25—Tenth International Congress of Entomology, McGill University and University of Montreal, Montreal, Canada, J. A. Downes, Science Service Bldg., Carling Ave., Ottawa, Ontario, Canada, Congress Secretary.

Aug. 22-24—Beltwide Cotton Mechanization Conference, Atlanta Biltmore, Atlanta, Ga., sponsored by National Cotton Council.

Aug. 30—South Carolina Plant Food Educational Society, Clemson House, Clemson, S.C.

Oct. 15 — Fifth Annual Chemical Sales Clinic, Hotel Commodore, New York, Sponsored by the Salesmen's Association of the American Chemical Industry.

Oct. 15 — Fifth Annual Chemical Sales Clinic, the Salesmen's Association of the American Chemical Industry; Hotel Commodore, New York City; chairman, Preston F. Tinsley, Westvaco Chlor-Alkali Division, Food Machinery and Chemical Corp., 161 East 42nd St., New York 17, N.Y.

Oct. 16-17—National Nitrogen Solutions Assn., Annual Meeting and Trade Show, City Auditorium, Sioux City, Iowa; John White, Auburn, Neb., secretary.

Nov. 2—Joint Agronomy-Industry Work Conference, Atlanta Biltmore Hotel, Atlanta, Ga.

Nov. 11-13 — California Fertilizer Assn., 33rd annual convention, Del Coronado Hotel, Coronado, Cal.; Sidney H. Bierly, executive secretary, 475 Huntington Drive, San Marino 9, Cal.

Nov. 19-20 — Eastern Branch, Entomological Society of America, Hotel Haddon Hall, Atlantic City, N.J., B. F. Driggers, Rutgers University, New Brunswick, N.J., secretary.

Nov. 28—Oklahoma Fertilizer Dealers Conference, Sponsored by the Oklahoma Plant Food Educational Society, Oklahoma A&M College, Stillwater.

Nov. 29—Oklahoma Soils and Crops Conference, Oklahoma A&M College, Stillwater.

Dec. 27-31—Entomological Society of America, Annual Meeting, Hotel New Yorker, New York City.

JOHNSONGRASS—BEFORE AND AFTER—Methods for control of Johnsongrass have been developed by H. E. Rea, department of agronomy, Texas A&M College, which he says make such control both possible and practical. Above is aerial view of two cotton fields, with the one in the background having been treated for weed control. Mr. Rea has written a rather comprehensive list of recommendations for control of Johnsongrass in scattered clumps; large spots; and thick stands, with full information on the toxicant used, the timing and method of application. These recommendations, prepared for Texas conditions, also give estimates of costs of the products named, based on per-acre application. Mr. Rea's experimental work was done in connection with Texas A&M, College Station, Texas, where specific information may be obtained.

F. E. Richardson

VELSICOL PROMOTION — W. K. McCready, director of manufacturing for Velsicol Chemical Corp., has announced the promotion of F. E. Richardson to the post of plant manager of the Memphis plant. Mr. Richardson had been assistant plant manager since last November. He joined Velsicol in 1948 with a background of 12 years of varied engineering experience. At one time, he was chief engineer at the Memphis plant in charge of expansion design and construction projects.

Classified Ads

Classified advertisements accepted until Tuesday each week for the issue of the following Monday.

Rates: 15¢ per word; minimum charge $2.25. Situations wanted, 10¢ a word; $1.50 minimum. Count six words of signature, whether for direct reply or keyed care this office. If advertisement is keyed, care of this office, 20¢ per insertion additional charged for forwarding replies. Classified advertising rate not available for commercial advertising. Advertisements of new machinery, products and services accepted for insertion at minimum rate of $9 per column inch.

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Winners of $1,000 Atlas Scholarships Named

WILMINGTON, DEL.—Atlas Powder Co. has announced the names of eight top college chemistry and engineering students who have been awarded $1,000 Atlas scholarships to help pay tuition and other expenses of their senior year.

Ralph K. Gottshall, Atlas president, listed the winners as: Robert F. Bridger, Missouri School of Mines; Donald R. Haring, Lafayette College; Peter P. Saunders, Northeastern University; Ira W. Levin, University of of Minnesota; Leonard Berkowitz, Polytechnic Institute of Brooklyn; Frederick W. Camp, Columbia University; Ira W. evin, University of Virginia, and Stephen W. Tobey, Illinois Institute of Technology.

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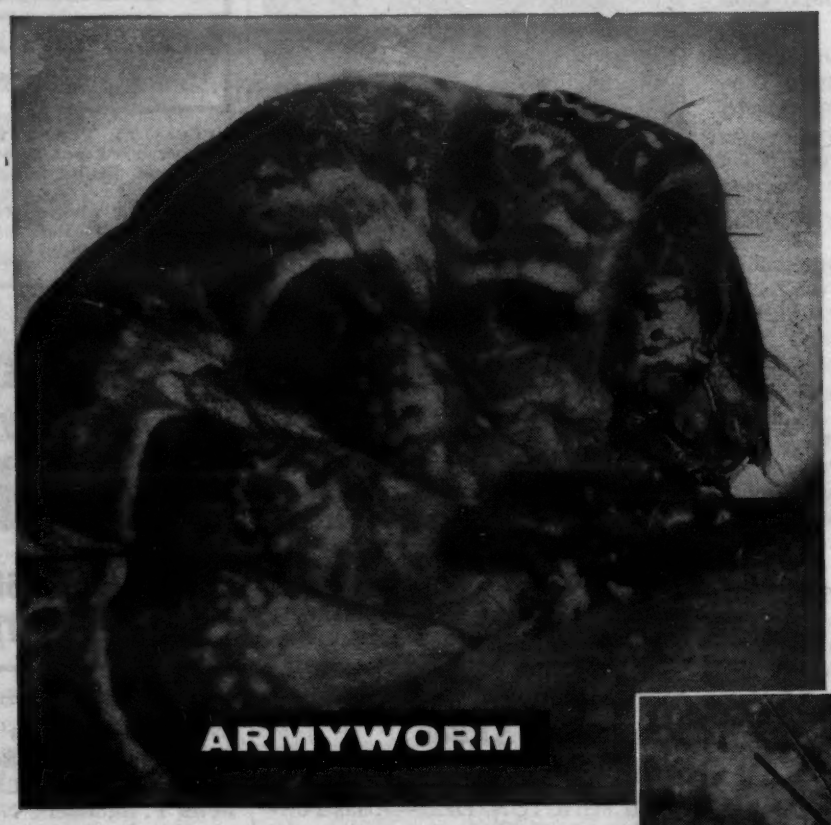

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